

geometry, determines those abstruse questions, wherein the different proportions of some parts to others are involved. Unless acquainted with history, he will be unable to account for the use of many ornaments which he may have occasion to introduce." "Moral philosophy will teach the architect to be above meanness in his dealings, and to avoid arrogance: and will make him just, compliant and faithful to his employer: and what is of the highest importance, it will prevent avarice gaining an ascendancy over him: for he should not be occupied with the thoughts of filling his coffers, nor with the desire of grasping everything in the shape of gain, but, by the gravity of his manners, and a good character, should be careful to preserve his dignity. In these respects we see the importance of moral philosophy: for such are her precepts. That branch of philosophy which the Greeks call *phusiologia*, or the doctrine of physics, is necessary to him in the solution of various problems: as for instance, in the conduct of water, whose natural force, in its meandering and expansion over flat countries, is often such as to require restraints, which none know how to apply, but those who are acquainted with the laws of nature: nor, indeed unless grounded in the first principles of physic, can he study with profit the works of Ctesibius, Archimedes, and many other authors who have written on the subject. Music assists him in the use of harmonic and mathematical proportion." "Skill in physic (hygiene) enables him to ascertain the salubrity of different tracts of country, and to determine the variation of climates, which the Greeks call *klimata*: for the air and water of different situations, being matters of the highest importance, no building will be healthy without attention to those points. Law should be an object of his study, especially those parts of it which relate to party walls, to the free course and discharge of the eaves' waters, the regulations of cesspools and sewage, and those relating to window lights. The laws of sewage require his particular attention, that he may prevent his employers being involved in law suits when the building is finished. Contracts, also, for the execution of the works, should be drawn with care and precision: because when without legal flaws, neither party will be able to take advantage of the other. Astronomy instructs him in the points of the heavens, the laws of the celestial bodies, the equinoxes, solstices, and the courses of the stars: all of which should be well understood, in the construction and proportions of clocks. Since, therefore, this art is founded upon and adorned with so many different sciences, I am of opinion that those who have not, from their early youth, gradually climbed up to the summit, cannot, without presumption, call themselves masters of it. Perhaps to the uninformed, it may appear unaccountable that a man should be able to retain in his memory such a variety of learning: but the close alliance with each other of the different branches of science will explain the difficulty. For as a body is composed of different concordant members, so does the whole circle of learning consist in one harmonious system. Wherefore those, who from an early age are initiated in the different branches of learning, have a facility in acquiring some knowledge of all, from their common connexion with each other."

This extract, to my mind, strikes an extraordinarily modern note.

In the Middle Ages the seats of learning were the monasteries, the forerunners, one might say, of the modern universities. Here, we find, were trained not only the great scholars in literature and science, but also the great architects of the mediaeval cathedrals. The importance of the architect and the high technical knowledge required by him are referred to in many documents and the intense study given to the subject is clearly indicated, to mention only one instance, by the sketch book of Villard d'Honnecourt, an Architect who flourished in the thirteenth century.

With the Renaissance, the age of humanism, we find a new era dawning and the Architect once more plays an important part.

We know a great deal about the famous architects of Italy, France and England, from the fourteenth to the eighteenth centuries, about their scholarship and high technical skill.

In Italy names like Brunelleschi, Alberti, Bramante, Peruzzi, Leonardo, Michael Angelo, Vignola, San Michele, Palladio will always live not only in their great creations, but also in their literature, letters, sketch books and drawings.

These men were all scholars, they spoke and wrote Latin, they did an enormous amount of research in recording the ancient monuments throughout their



STUDY OF CORINTHIAN ORDER.

First Year.

N. B. Pryde

country, and most of them were expert painters, sculptors and craftsmen. Their training commenced at an early age and although it was essentially a training in all branches of the arts and crafts and the science of building, yet the humanities were never neglected by them. They associated with scholars in other branches, they were appreciated by Popes, Kings, Princes and the public generally.

In France much the same state of affairs existed and with the foundation of the French Academy of Architecture in 1671, the forerunner of the famous Beaux Arts School of Modern France, we find architects holding their own with the learned men of other professions and obtaining positions in the State equivalent to those of our Cabinet Ministers to-day.

In England there are only a few outstanding names, but these again achieved fame on account of their scholarship.

In the works of Inigo Jones, the first great Renaissance Architect in England we see the result of long study in Italy. His work it is true, follows the somewhat cold academic style of Palladio, but nevertheless his scholarship brought him into great repute. In Wren we have our greatest architectural genius, successively Professor of Astronomy and Mathematics, at London and Oxford, yet from an early age producing work which shows a brilliant knowledge and appreciation of architecture. Sir William Chambers, though somewhat severely academic, was one of the greatest scholars of the eighteenth century and influenced English taste not only in architecture, but also in interior decoration and furniture. He was followed by the Brothers Adam, famous for their research, who, with Wren, did so much to establish that characteristic English domestic architecture which has rarely been equalled to this day.

At the beginning of the nineteenth century the outstanding architect is Sir John Soane, who designed the Bank of England, and whose office was a school of architecture in itself.

From 1784 to 1837 no less than fifty-five men passed through his hands, the most famous of these being Basevi, architect of the Fitzwilliam Museum, at Cambridge; Gandy who became an A.R.A.; Sir R. Smirke, R.A., who designed the British Museum; and D. Laing, the architect of the Custom House, London, under whom Sir William Tite received his training.

In a paper written by Mr. A. T. Bolton, in 1923, and published in the R.I.B.A. journal, we get an insight into the educational methods of Soane's office. Before articles were signed the student was put through a probationary period of some weeks, during which time he was employed in freehand drawing and drawing out the Orders and Architectural Mouldings.

He was then engaged on surveying the plan of a house and squaring dimensions.

Temples were next drawn and perspective was begun. He was then sent to a building to take notes of work in hand and spend some days drawing a room in the building.

"Soane's pupils seem to have visited works in hand, in pairs, and had to take sketches, which were then entered in a book recording the visible progress of the work. They must in this way have acquired an excellent idea of the construction actually in execution"

Many of the pupils were also constantly employed in making large diagrams for lectures given at the Royal Academy and reducing these to a smaller scale as illustrations for the manuscript original folios of the Soane lectures. "The number of great examples of historical architecture at home and abroad, thus drawn by pupils is remarkable. They practically cover every class of building and the work of nearly all the famous architects."

"Soane also gave his pupils plenty of practical work including surveying, measuring, costing and superintendence, as well as the making of working drawings. But he also, it is clear, established a brilliant academy of draughtsmanship."

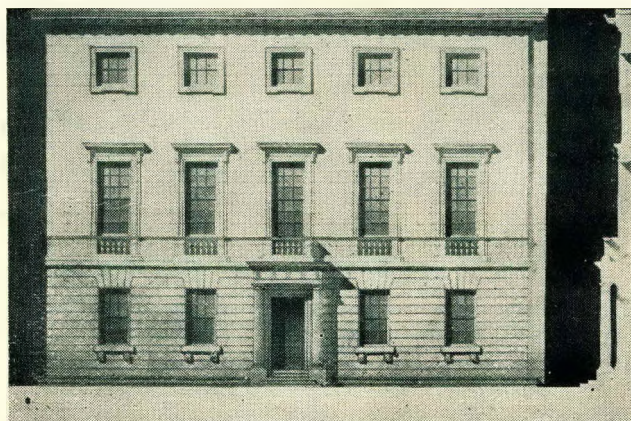
"Probably," as Waterhouse says, "with about three possible exceptions, no architect since his time has ever provided in his own office—and that a busy office—such a complete and refined education for pupils."

The hours were long, from nine a.m. to eight p.m., and the period of articles covered about five and a half years.

With the 20th century architecture, architectural education, and public appreciation of architecture seem to have come to an end.

This was no doubt due to the enormous wave of building which swept over England with the great industrial revolution. Architects could no longer cope with the work. They were overwhelmed in the avalanche, their work was carried out by partially trained draughtsmen employed by the speculative builder and estate agent and it is only here and there in such great works as St. George's Hall, Liverpool, the Houses of Parliament, London, and the British Museum that we see the work of scholars.

Over the rest, or the bulk of it, let us draw a veil.



DESIGN FOR A FACADE.

Second Year.

N. Finkelstein.

Architectural Education To-day.

The question facing us to-day, as it has faced the architects in England for the past fifty years is what is the best form of Architectural Education.

We, in this country, are in the fortunate position of being able to decide this question for ourselves and put it into force under our Act.

There are at present three possibilities for the architectural student entering the profession :

1. Pupilage with such tuition as may be obtained from their masters.
2. Pupilage with part time training at an educational institution.
3. Full time architectural training.

Properly organised architectural education has only been in existence in England for the past twenty years and in the Dominions for a considerably shorter period.

It is difficult therefore to say definitely at this stage which is the best system.

It is clearly evident, however, from the report of the First International Congress on Architectural Education held in London, in 1924, that "two forms of education have already superseded, or are to-day superseding, pupilage and apprenticeship in Europe, the British Empire and America."

- (a) That in which architectural education is entrusted to institutions wholly or in part devoted to teaching the technique of the art (the English method).
- (b) That in which architectural education is directed upon lines which combine scholastic training with periods of work under the conditions of practice (the French method).

1. *The pupilage system :--*

In my opinion the pupilage system as carried out by a large number of architects in South Africa to-day is one of our greatest scandals. A boy is persuaded or advised to enter an architect's office, in many cases with a very low standard of general education, and is informed that he will get a good commercial and practical training, that tuition outside the office is a waste of time and money.

The library at his disposal consists of perhaps a weekly overseas journal, copies of our local Architectural and Building Journals and numerous trade catalogues.

Why waste time studying the buildings erected in the past, he is told. Why waste time doing elaborate drawings. You have the structural engineer, the shop fitter, the lift engineer, the art metal worker, the stone and wood carver, the plasterer, the glazier and painter at your beck and call. They are the expert designers. Why should you waste your time doing their work. In these days of specialisation it is quite unnecessary for you to do more than produce a plan and elevation that will comply with Municipal requirements.

That is the opinion of the profession of an architect expressed by many practising architects to-day, according to statements made to me on more than one occasion by students and parents. Assume that the student has little or no aptitude for the work. What opportunity has he of giving it up, having committed himself by signing an agreement? What then is the result? An overcrowding of the profession by large numbers of partially trained architectural draughtsmen.

On the other hand we have the pupilage system, which I have outlined, of a century ago, in which an architect made it his duty to provide a student with a sound architectural education for which purpose he was well equipped, and for which he received a large premium.

2. *The pupilage system with part time education :—*

This system has been in vogue for some time and is likely to be until such time as maintenance scholarships and bursaries are available.

Its success depends largely on the architect's office and on the amount of interest taken by the architect in his pupils.

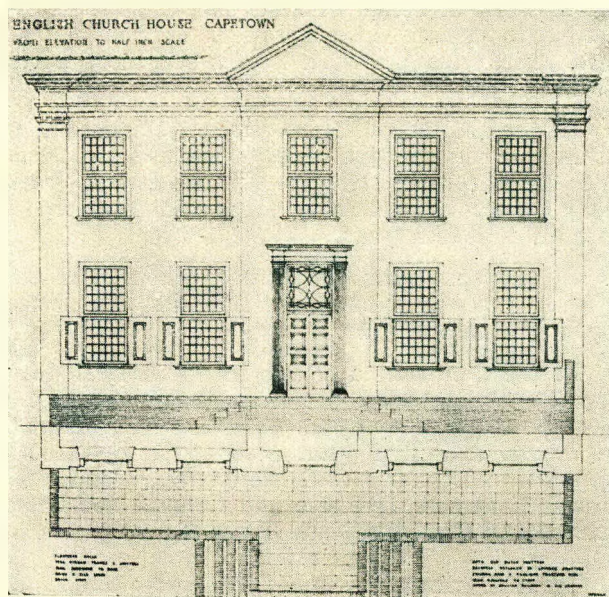
In many offices the architect is too busily employed to give up any time to the tuition of a pupil with the result that the latter is largely dependent on what assistance he can obtain from members of the staff. Further, the manner in which the work is carried out and the particular bias which the architect may have for one type of design or another seriously affects the development of a pupil and may completely stultify his own initiative and imagination.

What tuition he may get, therefore, is largely dependent on the facilities which exist in the office or at a local educational institution.

There may be a well equipped school and library at his disposal, but this is only possible at present in one or two large centres. Even where these facilities exist the student can only find time, as a rule, to attend classes after office hours. It is, therefore, well nigh impossible for him to do the large amount of drawing, freehand and architectural, required, in addition to his studies in the other subjects, unless he gives up his week ends and holidays for the purpose. Further, he is frequently, during a rush, occupied with overtime work and his studies therefore suffer.

From our experience in Johannesburg, this system of education is most unsatisfactory, and it is only in one or two instances, where an architect's office is well equipped and his chief is sympathetic, that we have obtained satisfactory results.

Again the question of whether the student shows aptitude for the work comes in. In the first year or two he is chiefly occupied on routine office work with only an occasional opportunity of working at a drawing board. He may show little or no enthusiasm for his classes, but having committed himself and being in receipt of a salary he feels he must go on.



MEASURED WORK.

N. Hanson.

Thus large numbers of semi skilled draughtsmen are turned out who drift from one office to another or, with luck, are absorbed by the Government, Municipal or Mining Offices.

3. The full time course:—

This is the system adopted almost universally by other professions.

Not only does it enable a student to develop his own initiative and imagination, to do research in any branch of his profession, but it brings him into close contact with students of other professions, to my mind the greatest asset he can have in after life.

His work is seen, understood and appreciated by these students in other professions and he thereby gains that professional status which is sadly lacking in our profession to-day.

Is it not better, therefore, to concentrate on one or two well equipped schools, to endow them with libraries, to encourage them in research, to provide travelling scholarships and maintenance scholarships or bursaries to enable those, who could not otherwise afford to attend, to take advantage of such training?

In a recent report published by the Council of the R.I.B.A. it is stated:—

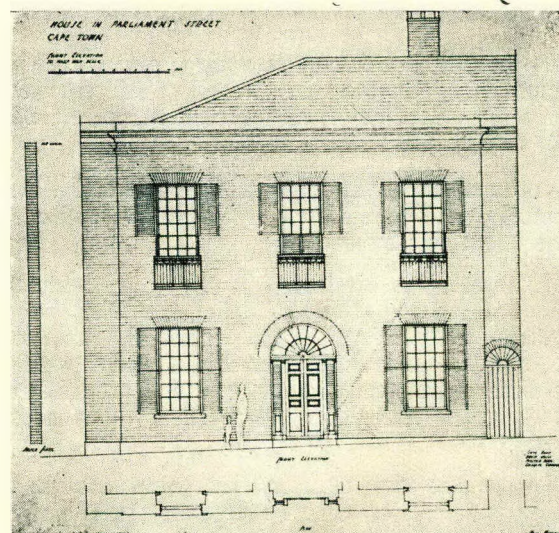
"The Committee believe that whole time Architectural Courses provide the best way of training to-day, though the genius will flourish in almost any surroundings. At the same time the Committee recognise that want of means often prevents students from attending a full time day school course at a distance from their homes. Looking into the future the Committee believe that the profession of architecture will ultimately demand as strenuous a preparation as those of Medicine and Law.

Provision for a comprehensive training of this kind should be centred in a few large schools, and exemption from the Final Examination for the Association R.I.B.A., for which at present the Council of the R.I.B.A. requires at least a five years course, should only be granted to successful students of these schools."

Later in the report, after dealing with statistics, we find the following:—

"From the evidence available, of which the salient parts have been quoted above, and from the evidence of those responsible for the keeping of employment registers, the Committee believe that there is no overcrowding so far as the highly trained, competent man is concerned. But they believe also that there is a surplus of indifferently trained persons, especially amongst the junior grades." . . . "Finally we consider that the utmost importance attaches to the following points, which we believe should be widely circulated to the Profession:—

- The figures which we have examined prove beyond question that the Recognised Architectural Schools are in no way contributing to the overcrowding of the Profession.
- Architects in practice should be reminded of the unfairness of taking a boy into an office in a junior capacity without making adequate arrangements for his education and training if he shows a bent for architecture.
- There is a growing tendency to casualise employment in architects offices. Assistants are engaged for special work for a few months only and are then cast aside to swell the employment registers. We recommend that private practitioners should be urged to avoid short term employment of assistants wherever possible, and to remember the evils in the building and other industries of which casual labour has been the cause.



MEASURED WORK.

R. D. Martienssen.

- (d) Government Departments and Municipal Authorities are particularly prone to the engagement of temporary staffs, a practice from which many cases of extreme hardship have resulted and will result. If the system cannot altogether be avoided these authorities should be urged to alleviate the hardships which it entails."

In conclusion I would like to refer briefly to the system of education which we have adopted in connection with our courses at this University to explain the work exhibited in the next room.

The course in Design is spread over five years. In the first year students have to complete six sheets of freehand drawing, one sheet of ornament, two sheets of lettering, one sheet of coloured ornament, three sheets of the Orders, viz.: the Greek Doric and Ionic and the Roman Corinthian.

Having mastered these elements they are then admitted to Class A in which they compete in a sketch design subject once a week. On obtaining six mentions in this Class they are admitted to Class B, where similar competitions in more advanced subjects are held. On obtaining six mentions in this Class they are admitted to the advanced Class C.

Thus a student possessing imagination and ability can rapidly forge ahead in the subject of Design.

In each year term subjects are set which have to be fully worked out, first in sketch design form and then as working drawings in which all details of construction must be shown. Before taking the final examination in the fifth year a complete design must be fully worked out with small scale drawings and details, accompanied by a report and specification. This is in the nature of a thesis and must be carried out entirely by the student. The course outlined applies to Degree Students. A modified form of the course is taken by Diploma Students. In all these schemes every attempt is made to encourage and develop the students' own individuality and imagination without attempting to enforce one's own particular bias, and the work whether in general design or detail, is only condemned if illogical.

The course in History is spread over three years, the first being devoted to the Classical periods, the second to the Mediaeval and the third to the Renaissance.

Lectures are given once a week and the student is encouraged to do his own research and write up his own notes on the subject.

The subject is studied with a view to appreciating the influences—climatic, social, political, religious, geological, etc.—which brought about the different so called "styles," to tracing the origin and development of the different forms of ornament and decoration, and to studying the materials and methods of construction employed.

The course in construction also covers three years, in the first of which materials, technical terms and elementary work in each trade such as bonds, joints, etc., is dealt with. In the second year more ad-

vanced work in actual construction, applied as far as possible to designs in progress is carried out whilst in the third year the work is of a still more advanced nature.

In the second and third years, courses in graphic statics and the strength of materials are given leading up to the theory of structures in the fourth year and finally structural design in steel and reinforced concrete in the fifth year.

In the first year the course taken in Freehand Drawing leads to a course in Life drawing or modelling in the second year.

In the first year a course in geometrical drawing is given dealing with practical plane and solid geometry perspective and the projection of shadows. In the fourth and fifth years, courses in Specifications, Estimates and Quantities, Professional Practice (which includes Contracts, By-Laws and General Architectural Practice and Procedure) and Town Planning are given.

These courses are common to Degree and Diploma Students.

The Degree Students take in addition short courses in English or Afrikaans, French or German, Chemistry and Physics, Geology, Surveying, House Wiring, the History of the Fine Arts, and Interior Decoration and Furniture. The whole object of these courses is to direct the student in research rather than to dictate notes to him, to enable him to more efficiently cope with any problems which might arise during actual practice.

With regard to Quantity Surveying Education, much of what I have said about Architectural Education applies. A few students have presented themselves and have taken those portions of the course which they may require to enter for the Professional Examinations of the Surveyors Institution. In dealing with Quantities for Architectural Students the methods of taking off are explained and simple examples worked out in each trade. The methods of abstracting and billing are only explained, for it is not intended that Architectural Students should do more than this, unless they wish to specialise in the subject.

For those students, therefore, who wish to specialise it will be necessary in the future to engage the services of a fully qualified quantity surveyor in order to take the subject of Quantities efficiently.

The advantage of students in Architecture and Quantity Surveying meeting and working together need hardly be emphasised by me. It appears essential that future practitioners in these professions should be thrown together as much as possible during their student days.

Finally I would urge that the success of our profession depends on the education of our profession. If we are to take up the attitude that our future Architects are to be trained only in the rudiments of Architectural design and construction without a sound knowledge of their principles whether in the Fine Arts or in Science we shall merely turn out men who are no more competent to produce good architecture and protect the public than the modern speculator in property and the speculative builder.

Discussion on Professor Pearse's Paper.

THE PRESIDENT-IN-CHIEF: Gentlemen, I am sure you have all thoroughly enjoyed this most interesting paper from Professor Pearse, which contains a number of very important points for discussion.

Professor Pearse has touched on many matters of interest to the profession, and although his ambitions and ideals may be such that we may not be able to rise to them at the present moment, no doubt they are very sound and illustrate what we should aim for. My feeling about the suggestion which Professor Pearse makes regarding the training of a student, in impressing upon us the desirability of the full-time course at the University, is that he does not suggest at the same time any particular remedy to the poor Architect who has to do his work. I don't know of any other profession so situated in that respect; the medical man does not require numerous assistants in his office; the lawyer to a certain extent does, and I think he still has the right of articulated pupils. But in the case of the Architect, his profession is such that it is essential for him to have the assistance of several draughtsmen and assistants in his office. If the idea of the full-time student at the University is carried out that particular student will spend his five years at the University and not necessarily go into an office at all. Where is the Architect to obtain his draughtsmen and junior assistants from to carry on his work? The draughtsman, under the conditions which Professor Pearse has brought forward, would be the man who had more or less failed in rising to the highest ideals of the University course. But is that right, that we should be dependent, and that that class of man should drift into what you might call the draughtsman class? Otherwise what provision is there for such a man as a draughtsman? It is only natural that if a student is so well trained by spending five or six years at his University, and passing his examinations, he is not going to an office to become a junior draughtsman. I submit it is absolutely imperative for an Architect in an average practice—much more so an Architect in a big practice—to have several assistants, and to have several junior assistants. Who is going to do the junior assistants' work in an Architect's office, if there are no such persons as architectural students in Architects' offices? I think that is a serious point that will require careful consideration. It seems to me that the only ideal way out of this difficulty is to have the student in a kind of dual capacity: spending portion of the time in the Architect's office and a portion of the time at the University. That is only one point—I don't want to detract from the numerous important points in Professor Pearse's paper—which to my mind ought to be discussed.

Mr. RITCHIE FALLON: Mr. President and Gentlemen: In Professor Pearse's very interesting lecture, he suggested that I might say what the system is at the Cape. I take this opportunity now. There we have had quite an uphill fight in getting the students to attend classes during the day. I blame, to a certain extent, quite a number of the practitioners. When our school started these boys were in the office, and quite a few of the practitioners would not give their boys a chance to get off and attend during the day. Now, after a few years we have arrived at a

fairly satisfactory solution of the difficulty: we have been persuading practitioners that they should not take a boy into their offices until he had done three years at the University. The result now is that our first and second year students—I think I am right—are entirely composed of whole-time students; and in our third year we have only got an odd one or two who are not whole-time as well. Next year we anticipate having the whole of the third-year students, whole-time students. One of the arguments very useful to us in talking to the practitioner was that, if they really wanted a boy in the office as an assistant—not as an office-boy—it was much better policy to have a student of three years' standing, who did know one end of a T square from the other and odds and ends like that; they should not be worried by trying to put a youngster through his paces and teaching him to draw. The boy who had had three years' experience at the University was certainly worth his salary and he could relieve the practitioner of an awful lot of trouble. When we come on to the fourth and fifth year students, generally we find it different. They are part-timers, and as at that stage they are open to influence from practitioners, they do not necessarily stay with the same practitioner all their time. At the same time they are carrying on with their education, and they are meeting students in, shall I call them, allied professions. They are not being robbed of that. There was one little thing that occurred to me during the reading of the paper: Professor spoke of Soane's office and mentioned that the hours were 9 a.m. to 8 p.m. We have heard quite a little grumble now and again about the boys not having time to attend to their studies, but I think in our modern days the youngsters are getting a bit lazy. Personally speaking, I know I worked a jolly side harder than that when I was a student, trying to collect everything. Coming to the President's remarks, I was just considering what should constitute the staff of an Architect's office. Over and above the actual assistance it is necessary to have, say, a typist and a junior clerk; and when I say a junior clerk, not necessarily a junior who ever intends to become an Architect. We must have somebody to organise the filing, catalogues, samples, papers generally. Then from that on, you get junior draughtsmen and senior draughtsmen, or call them assistants, if you like. Of course, a lot depends on the size of the office and the amount of work that is passing through it; you may combine your typist and junior clerk, either making the one act for the other, or the other act for the one. In the small office you may not want more than one junior assistant. I think a lot of the trouble with practitioners is that they expect to get hold of a pupil, at least they call him a pupil, and get the work of a junior clerk or office-boy out of him. And I don't think that is fair; it is not "playing the game."

Mr. T. MOORE: Mr. President and Gentlemen: I listened with very great interest to Professor Pearse's paper, and the only thing I wish to say in connection with it is that it should be placed in the hands of all the juniors in this country. It tells them what they should do, and it tells them, to a great extent, how they can do it. And I think it is by telling youngsters what they should do, and at the same time telling them how they can do it, that you will get them to take an interest in their professional work.

Mr. D. M. BURTON: Mr. President, like most of the gentlemen in this room, I enjoyed Professor Pearse's paper immensely. I have this question of architectural education very much at heart, and I might state that I am fully convinced in my own mind that the best qualified student will be the student that has taken the degree in architecture. The system of part-time studies, or pupilage, does not, to my mind, give the student the best opportunity of learning the business from A to Z, which is what he would get by taking the degree course. You will always find that there are certain students who are not able, perhaps through adverse circumstances, to take the degree course. The other course is open to them. The barrier that has been mentioned in connection with an Architect's office staff, I think with all due deference, Mr. President, is a bogey. If we set about and see to it that every student of architecture becomes highly qualified and skilled in the profession, I don't think that an Architect who is really worthy of the name, in practice, would hesitate to pay a degree student a small salary, at any rate something commensurate with the knowledge that he would obtain in that office, which in itself will equip him for future service to the country at large. I flatter myself, Mr. President, that since 1909, when the Transvaal Act came into force, the architecture of the Transvaal has improved beyond all bounds compared with what it would have been had there been no Transvaal Act. I feel convinced that the same thing will happen as the result of the 1927 Act throughout the whole Union, and that we can look to the young men of to-day who are going to build South Africa up from an architectural standpoint as second to none of any country in the world, with its population. I feel very keenly about this question of the education of architectural students, because we find, if we look through history, that those who are really competent always come out at the top. It is just possible that a young man may take a degree in architecture and yet not be what one might call at the top of his profession in professional practice, but the country is going to benefit as the result of that young man's education and his work in an Architect's office. Not all graduated students are necessarily going to be in practice for themselves. It may be for a time their ambition, but eventually many of them will find their vocation under the supervision of another Architect, also a degree Architect. And I feel that Professor Pearse, as the principal of this Chair of Architecture, has perhaps the greatest work in front of him of any professor in this country, and that is the actual training of the architectural students at the Witwatersrand University. The day may not be far distant when practically every University in each Province will have a similar institution. There is something fine, or something great, in feeling that the Witwatersrand was the first University in South Africa to establish a Chair of Architecture, thus leading the way. I do not wish to suggest, Sir, that Architects in other provinces of South Africa have not had the same ambition. It was just perhaps our good fortune, that we had at the time Professor Hofmeyr, who ably supported us in this Chair of Architecture; we have something to thank him for in that respect. Therefore I feel, Mr. President and Gentlemen, that at this stage we might, with advantage, study the problem, from all its aspects, of the education of the young man taking up architecture in this country. Many of the gentle-

men here, I know, have worked equally long hours as the men referred to this morning had to work, but it does not necessarily follow that they had the same advantages of learning. As Mr. Ritchie Fallon has just pointed out, he also had to work very hard; I think most of the older practitioners had to do the same thing, and a good deal depended upon the principal with whom they worked, as to how much they were taught at the time, even in the best of faith. We know that many men have taken youngsters into their offices to teach them the profession and have never considered giving them half an hour's instruction. Mr. President, there is no guarantee that the same principle would not be adopted to-day. Therefore I suggest that the finest thing that a young man can do would be to take the study of architecture from beginning to end, and if possible, the degree course.

Mr. HAROLD PORTER: Mr. President, I would like to congratulate Professor Pearse on the very able paper which he has given us, and would like to support him in most of the suggestions he puts forward. But I would like to put one little aspect of the junior's position to this meeting, and that is, if you get a full-time student, he passes over certain essentials which occur to a junior in an Architect's office, and which he has no facilities for picking up later. I refer to what a junior has to do in an office: he has to interview the callers, he has to use a certain amount of tact in dealing with clients, getting information of what they require: whether it is a client requiring a new job or whether it is only an agent trying to sell you something, and the Architect cannot afford the time to interview him. But there are sundry little details of that nature which a junior picks up in an office, which I think are very essential to the training of an Architect in after life. And I think the degree student misses all those sundry details, if his first appearance in an Architect's office is after he passes his fifth year. I would like to hear some other members on the same subject, but I think those minor details are very essential to the complete training of an Architect.

Mr. J. S. CLELAND (Pretoria): Mr. President, I also listened with very great interest to Professor Pearse's paper. It is a very difficult subject. I think, however, the ideals that he puts before us are what we should try to realise. We have, as you know, a large staff of juniors, and a good many juniors have been pushed on to us lately, more than we wanted, possibly. I hope this won't be reported but politics come in sometimes, and I have been feeling that we may have to cry a halt. We have not been able to cater for them satisfactorily; we have a system of part practical training in the office, and part educational training in the school in town. The latter comes under Professor Pearse to some extent. But even that is not quite as satisfactory as the whole-time system. But I think there is a good deal in what Mr. Porter says with regard to the things that a youngster picks up in an Architect's office, that is, the interviewing of the clients and in a small way the callers. We feel that our young men lose a lot from being with us; we have often discussed it. They are cut off from the rest of the world; they are not getting the education of the world, if I may put it that way. Of course, we cannot get over that difficulty very well. We shall

always have it. But I think Mr. Fallon's suggestion, that for the first three years all the students should be whole-time, and then after that possibly part time—part in a practising Architect's office, and the other part say educational—would be the best. They would then get the educational advantages and the practical ones that Mr. Porter refers to. The whole question has got to be gone into very carefully. This is just the beginning. I think we are very fortunate in this country inasmuch as we are not hampered by any very old system, and in the end I am sure we shall get something that will be of great advantage to the young men of this country entering the profession.

Mr. E. M. POWERS: Mr. President and Gentlemen: I also wish to congratulate Professor Pearse on his very excellent paper. I thought it was extremely interesting, even to the older practitioners, who had heard a good deal of this ground covered before. There is no doubt about it, the Professor has given us a very high ideal. You, Sir, have introduced more or less practical politics into the thing, and so also has Mr. Fallon. Professor Pearse quoted from the report of the R.I.B.A., that it was found that there was no overcrowding of the profession by fully-trained full-time students, but there was to a certain extent overcrowding by the partially trained men. It seems to me that has some bearing upon the point that you made with regard to the staffing of the Architect's office. I do think we have a tendency to visualise this sort of thing in the centres with which we are most familiar, and it has struck me rather forcibly that in Johannesburg you think Johannesburg; in Capetown you think Capetown. But has anyone thought of the other towns which are hundreds of miles away from Capetown, Johannesburg or Durban? The Architect must carry on his business. We strive for ideals, but we are living in a very commercial and a very competitive age. An Architect cannot do all his own work; he must have assistance. Now the problem is this: is he going to employ a fully qualified assistant with five years' training, or probably the diploma man or the degree man? That, of course, I suppose, would be the ideal. But even then he must have some junior assistance, and then what happens? Boys leave school. The Government policy to-day is to find employment for these boys. I don't know whether it happens in Johannesburg, but if you get on a Durban tramcar, there is a notice facing you, "Ten thousand boys are leaving school this year. Can you find employment for them?" And when they leave school, just at the end of the term, their schoolmaster usually gets them together and asks, "What are you boys going to do?" One says he would like to be an Accountant; others would like to be Engineers; another one says, "I would like to be an Architect." These boys have all matriculated: they are eligible to go into an Architect's office. And you get the parents coming along saying, "I would like my son to come into your office." What is the position of the Architect in that respect? The boy must be something more than an office-boy, what Mr. Fallon calls a junior clerk; and you try him for a time to see whether he has any aptitude for the profession. I suppose the ideal way would be to send the boy to the University to take the full-time course. On the other hand there are many of these boys whose work does not show that ability. What are we to do with them? They want to carry on: they are a good class of boy, although they

will never be geniuses; they will never be Wrens. They are quite content to become draughtsmen. I have a case in my mind at the present moment of a boy who attended the Durban Technical School and was a pupil in the office of a leading Architect. He sat under the conditions outlined by the Council on Architectural Education for the matriculation examination, and has failed two or three times. He said, "I don't want to be a qualified Architect. I am quite content to carry on as a draughtsman or as an architectural assistant." And he is a very good draughtsman. I do think that is a problem we have to tackle from that point of view—whether the boy who comes into the office should have one or two years in the office and then take the University course, or whether he takes the University course first and then comes into the office. You will always get in every profession, in every branch of life, that medium talent which will never rise to the top and will never be very very low. Why not provide for them and help them to find a living? And I submit you have to carry on your business in competition with your fellow practitioners, and you have to run your business as economically as possible, unless we get very altruistic, as in the days probably of Vitruvius, from whose records we had some very excellent quotations.

Mr. W. H. LOUW: Mr. President, this is hardly an attempt to contribute anything to the discussion, but I felt the need for touching on one or two points. If there is anything I should say in favour of first training in an Architect's office, it would be to bring a young man into an office for a while to give him an opportunity of finding out whether he really thinks he will ultimately be an Architect. I also get many applications from all over the country from young men wishing to come into the office. I refer them first to this School, and others, but I do feel that it would be necessary in the first instance to get into touch with an Architect's office. Then I would like to express our appreciation to Professor Pearse on the question of research work. We have seen what has been done here this morning. Only last year when he visited us he went into this question; in the first instance measuring up the old buildings round about the Cape peninsula. I do think the profession owes a very great debt of gratitude to Professor Pearse for what he is doing and has done in the past in this direction.

Mr. TURNER NEWHAM (Pretoria): Mr. President, I have also been listening to Professor Pearse's lecture with very great interest, and following up Mr. Porter's remarks, I would like to suggest that there are essentially two lines of training that must properly be taken into consideration. The first is the articulated pupil. During the first five years, with both the articulated pupil and the University student, it is a period in their lives of development, forming character, learning. In the case of the articulated pupil, he comes into contact with a certain amount of responsibility; he has to be on the jobs; he has to control the work as the years go by. And it is only that sense of responsibility which makes for development of character, and essentially, you require a strong character in an Architect in the proper carrying out of his work. The University student is spending most of his time, all of his time, in creating imaginary works, which entail no sense of responsibility. And I think his development from that point of view, of not being

influenced by a sense of responsibility and control, is not the same. I feel that the ideal result in the end would be to form a partnership between a University trained Architect and one who had been brought up in an office. There is that point to be considered.

Mr. W. J. McWILLIAMS: Mr. President and Gentlemen: I would like to pay tribute to the excellent paper we have heard from Professor Pearse this morning. Professor Pearse has shown evidence this morning of his genius as a teacher of architecture. I was particularly struck with the brief and excellent manner in which he prepared our minds for the meat of his paper by the little historical sketch of the conditions in past years. And I must confess that, while there is a great deal to be said for what Professor Pearse has told us this morning, from the point of view of an ideal, I must admit that there is something lacking when it comes to the necessity of an Architect carrying on the work of his office and having nobody to do the drudgery. In every walk of life the start is drudgery, the bottom rung of the ladder, so to speak. Now, I live in a town, Port Elizabeth, where there are no educational facilities worth mentioning, and since the Schools of Architecture in this country have been set up, I have invariably told parents who spoke to me about their boys, to consider the advisability of putting them as students in one of these institutions. In some cases it bears fruit, but in some cases the parents are too poor to afford it. There are instances where I have taken in pupils, and they have to follow the routine of the office from the bottom, from the very start. And it can never be said that they receive a proper architectural training under these methods. We have no buildings of importance in Port Elizabeth that could be considered as in any sense an inspiration to the pupils. That in itself is a very great defect. But I see no remedy in taking any action that would prevent the office from having the assistance of articled pupils, unless there is going to be in the profession a grade particularly limited to draughtsmen only. Now, when it came to the matter of my own son—I would just like, if I may, to give the members present the attitude I took up. He showed at an early age an inclination towards architecture, and I happened to meet in Capetown a young gentleman, a member of our profession, for whom I have a great deal of respect. He had studied at the Architectural Association; he had entered an office in Capetown, and he had eventually obtained the Baker scholarship. Well, I met him just about the time he was thinking of entering practice for himself; and I asked him, with the experience that he had had in his training, was there anything that he could suggest that he would do differently, or he would like to have done differently, had he an opportunity of starting again. And he said, "Yes, there was." He said he went straight from school to the Architectural Association, and then to an Architect's office, and he considered that his time at the Architectural Association would have been of infinitely more value to him had he had some previous experience, of a year or two, in a really good Architect's office. Now, Sir, I may tell you I followed out that advice. I put my son to an office of high repute in Capetown for two years, and then he went to the Architectural Association school in London, at which he is now under training. And in several of his letters he has explained to me that his time in that Capetown office has stood

him in very good stead indeed. It has given him a pull over many of the other pupils because of his knowledge of the particular little things that he knew, that were necessities in the evolution of the work, and he has in no sense regretted the action I took. Now, Sir, it seems to me that that offers in some way a solution. When this boy went into that office, I can assure you his first year was a year of particular drudgery. It did him no harm; I consider it did him all the good in the world. His first year was a year of drudgery, and many times he wrote complaining about it; but he felt that it had to be gone through. And in the second year he began to take an interest in things. And it was at that stage that he went on to the Architectural Association. And I can assure you, if anybody were to seek a better method of equipping a lad to start with, to start his scholastic professional training, I think it would be difficult to find. That is my view—I would like to hear what other members have to say—that if the pupils who enter these schools, such as Professor Pearse has set up here, were first of all to take a couple of years in an Architect's office, it would in a large measure serve two purposes. It would meet the necessity experienced by the Architect, in giving him somebody to do the drudgery; and it would at the same time serve to weed out a good many who may not find the profession suitable to them, in the long run. Those are the only comments I have to make, Mr. President. I would like very much to have this discussion carried on very fully, so that we can come to some rational decision, as a result of this paper.

Mr. ALLEN WILSON: Mr. President and Gentlemen: I, like the previous speakers, must compliment Professor Pearse on his very fine paper. He is a student in every sense, and he aims at the ideal; and that, of course, is what he should do. Now, one of the speakers has taken up that point about the drudgery of the early training, and I, as an old practitioner, perhaps can speak of that with more knowledge than a good many. It didn't do me any harm to sweep the office out and I have done it many a time, sooner than work on a dirty drawing board. I am sure it doesn't hurt anybody to have to take blue prints; he gets to an office some day where he has to do it in a hurry. If he is above that kind of thing, well, he will never be a practitioner on his own. Now, Sir, it seems to me that a great deal of the trouble we are trying to get over concerns the money question. I have had many people come to me and ask me to take their sons, and I have said to them, "Can you afford to keep this boy?" They say, "Oh yes, but you will pay him something." And I say, "I don't know: he is not much use to me for a couple of years, anyhow." And in this country, of course, that question comes in more than any other: he expects to earn £10 a month straight off the reel, and he thinks he is worth it. Well, he gives you a lot of trouble, and it is not worth it. There is no question about that. And these people unfortunately think they can put a boy into our profession and it is not going to cost them anything. I had one case where a man said to me, "How long do you think it will take my son to become an Architect?" I said, "Well, give him seven years." That was the period of my articles. I served for seven years; I was in the same office for eleven years. And, as Mr. Fallon said, I worked from seven o'clock in the morning to ten and eleven at night,

for months at a stretch. But the time I said was seven years. He said, "Well, I can manage that." I said, "before he is finished, of course, and after a time he will be able to earn enough for his clothes and so on. But you must remember you may have him at home, and you will have to keep him, for even five or six years." That was followed out faithfully, and I had no difficulty from beginning to end. In other cases people have come and said, "Can't you give this fellow anything?" and they have gone away. If practitioners would take a little more trouble, before taking pupils, to find out their financial position, or their parents' financial position, and would refuse in certain cases, saying, "It's no good. This boy can never be an Architect," that is bound to help. Mr. McWilliams, it seems to me, has suggested a good solution. A fellow going into an Architect's office, learns heaps of things that a student will never learn at the University. And very important things, too. And in doing that, Mr. McWilliams has given his son a right and a fair chance, and he ought to make a successful man, as I am sure he will, from what I know of his father! The main point, I consider, about the matter is that we ought to find out whether a man can afford to be an Architect, or not. If a man is brilliant, he will be brilliant whatever you do; you can't keep him back. But I do think if every practitioner, when he has anybody brought to him, would point out what I have said, it would save a lot of trouble in the long run.

Col. PUNTIS: Mr. President and Gentlemen: I have listened with very great interest to the paper by Professor Pearse dealing principally with the education of Architects. But there was very little dealing with Quantity Surveying education, and that is a matter in which I am personally interested. As you know, in this country to-day there is a dearth of qualified Quantity Surveyors, and the Government some years ago considered the advisability and the necessity of training students in quantity surveying, in order to build up a staff sufficient to meet the requirements of the day. I may add to-day I have a staff of over forty Surveyors, but the greater proportion of that staff—I won't say the greater proportion, but forty per cent.—consists to-day of students qualifying in the profession of quantity surveying. The difficulties and the lack of facilities for education in this country, are matters which the Central Council and the Board of the Chapter should take in hand immediately. Professor Pearse touched on that subject very lightly. I was hoping he would have thrown out suggestions in order to create a discussion this morning. But I would like it brought to the notice of members of both professions that the difficulty to-day is the proper training and education of Quantity Surveyors in South Africa. Now, except in a few instances, the students under my control are forced to go overseas for their education. Most of them take the International Correspondence School's course, for which as you know they have to pay heavy fees. That I think is wrong in principle, and the sooner we in South Africa arrange for the education and training of Quantity Surveyors, the better for the country. As you know, there is not only a dearth in this country of Quantity Surveyors, but there is a dearth overseas. I may state we have had to import Quantity Surveyors quite recently from London.

A MEMBER: "Shame!"

Col. PUNTIS: I quite agree, it is a shame. I don't agree with that principle. I think it is wrong in practice and wrong in principle, to import any professional men into this country. But we are forced to do it; we have advertised from one end of the country to the other, and we cannot get the men. Furthermore, I might add we cannot get them in England. I might also add that I am being inundated month after month by parents of boys leaving school, just matriculated, asking if they can be advised as to how they can become Quantity Surveyors. My position is a very difficult one. I advise them first of all to consider what the profession means, the years of study, and the cost. The first thing they say to me is, "Where can I obtain the education?" Now, apart from what we do in the Government service, and that is very little, I might say, because our time is so fully occupied on work in the Department that we cannot devote to these young students the time we should do; all I can advise them is, private study or overseas study. And I would therefore like Professor Pearse and those interested in the profession—I am speaking now as a Quantity Surveyor—to consider, and consider quickly, what lines they propose to work on for the education in the future of the young South African in quantity surveying.

Mr. A. G. CROSS: Mr. President and Gentlemen: I would like to express my appreciation of Professor Pearse's paper. There are one or two points I would like to remark on, to illustrate the position in Natal. A student who is employed in an Architect's office obtains certain knowledge which will be of the utmost value to him in after life. We all know that the impressionable age of youth is in the teens. The student in an Architect's office rubs shoulders with all classes and conditions of men. He rubs shoulders with the builder; the builder is often a practical man. He may be somewhat rough in his education, but the man in practice with practical experience can always teach the student a lot. The student who goes to a college is debarred from that. I therefore think the best method of education for the youth is one that is divided between the practice in an architect's office and study in a well-known school, where he can obtain all the finer requirements of the art.

Mr. H. W. SPICER: Mr. President and Gentlemen: I have listened very carefully to the remarks made with regard to the student who is going to take up architecture. Now the point which seems to me a very important one, mentioned by Mr. McWilliams—I don't think it was emphasised quite sufficiently—is, as to what office the boy is going into. Is sufficient care given to the selection of the office that that boy is going to enter, as far as his early training, or the commencement of his training, is concerned? There is a tendency with a boy when he enters an Architect's office—he may be gifted in drawing pictures, he likes to get on to colour, he likes to get on to making an elevation—to leave the practical side out altogether, and he thinks, "Well, that will come along some day." But it is undoubtedly a very important factor as to

what office that boy will enter; otherwise you are going to give Professor Pearse a tremendous amount of labour, when that boy enters the University, of undoing what he has picked up in that office. I think we should emphasise that point. Mr. McWilliams took very great care, I understand, to place his boy in an office where he could get the necessary early training. I think another point has been missed, and that is that students who are trained at the University go into an Architect's office during certain periods. At the present time I have three. Some are extremely useful, and some are not. I am referring to those in the very early stage. There is another point which I think should be emphasised with regard to the students, and especially in connection with quantity surveying, and that is, the practical side of architecture, the preparing of the constructive drawings. We know that nothing gives an Architect greater delight than to get on to an elevation, and a dream. But nevertheless there is the drudgery, a tremendous amount of work on the practical side, preparing practical drawings, so that the Quantity Surveyors can get down to measuring them with the greatest of ease. Mr. Hickman, at the Banquet, I think, rather subtly touched on that point. He said the Architect comes in with a roll of drawings. "I don't know what they are, but there is a roll of drawings." But nevertheless there is a very great amount of work in our training, because if we had no drawings, no vision of a big scheme, no practical constructive drawings, well, there would be no Quantity Surveyors, because they would have nothing to measure from. I would like to point out that in America to a very great extent drawings are prepared minutely, constructive drawings. The steel work is going on; there is a separate drawing for that. There is a separate drawing for reinforced concrete; there is a separate drawing for ventilation; there is a separate drawing for drainage; there is a separate drawing for electric installation. There, I should say, the Quantity Surveyors have a very easy time.

Mr. COWIN: They have none!

Mr. SPICER: Mr. Cowin, I might mention, fell into the trap. I didn't want to say that! But I do say this, that with regard to Professor Pearse—I have spent a few hours with him not only teaching but also going over the remarkable amount of work that he is doing now—there is no better man that we could secure in South Africa, or perhaps in a wider space than South Africa. He has had the training; he knows what it is to prepare a drawing, and also to prepare the practical side of the drawing. And if you look very carefully through those drawings you will find they are practical from A to Z. That has not been mentioned in all the complimentary things said about Professor Pearse. He is going in for research work, but by research work you do not get right down into the depths of your job. Quantity Surveyors are very frequently rubbing that in to you. I don't see how it is possible, if an Architect knows his job; he gets right into it from every conceivable angle. I would just like to mention these points because they do not seem to have been touched upon. I was unfortunately unable to attend the lecture, but I practically know the contents of it, because I have chatted matters over with Professor Pearse so frequently.

Mr. R. H. JONES: Mr. President, I wish to support Mr. McWilliams' suggestion with regard to the two years' service in an Architect's office before he goes to the University. For instance it is only by getting in touch with the scantling that students could produce what they produced in that room. If it is only taken from a text book, it is of no use to the country.

Mr. N. T. COWIN: Mr. President, I am of the opinion that an ounce of practice is worth a pound of theory. Mr. McWilliams has stressed that point, and I think we should weigh it very carefully. I have had, in our own office, cases that will support that. I think I can say that no less than six youths have left our office and joined the local school of architecture, after a certain amount of training in our office. We had one special case of a youth who had been three years with us and who went to Liverpool, and within three months he won an open scholarship of £50 for a design for some special scheme that was set. The assessors were practising Architects, in Liverpool, and they commented on the fact that this youth had had a practical training of three years, and they thought it had stood him in good stead in that competition. The point, also, has not been stressed, of experience in the actual building trades. I think these youths have got to work with, as has been said, a rough class of contractor, and even to deal with artisans, and there is no reason why they should not be familiar with the work of the artisan, or actually working with them. My own boy was here for several months working as a carpenter at the University, under the contractor, and I believe he proved a very efficient carpenter. He was afterwards set on work entirely on his own responsibility. He told me he appreciated that very much, and he wished he could have had the same experience in the other trades, and I think that is extremely important. I know how difficult it is in our work to exercise supervision on a building; we are often at a loss—at least I know I am, and I have had a considerable amount of experience—to know whether a particular class of work is done as well as it might be done. And I think that is due to a lack of actual contact with the workmen on the job. And I think that is a very strong point indeed in an Architect's training, where he is connected with the supervision portion of his duties. I think the best type of training, would be a certain period on the works, if possible, actually working with the workmen, and then a couple of years in an Architect's office, where the sense of responsibility, as one speaker has said, should be developed. It is that I think that is rather lacking with the University student. You hear of them slacking, and there is no tendency in a busy office to slack. The principal would see that that is absent entirely. But you have not that atmosphere in a University, and I think the development of this sense of responsibility is extremely necessary. It might be combined by having a couple of years in an office, and then let the youngster have three years at the University; then the theoretical training might be reduced to three years at the University. There would then be no necessity to have five years; it could be three years' theoretical training at the University, and then after that a period of a year or two as clerk of works on a building. I remember reading the presidential address of Mr. Guy Dawber. He said that for five years he had acted as clerk of works on buildings,

and he said it had been of immense value to him. And he recommended that every student of architecture should at some period get some experience as a clerk of works. Then as regards quantity surveying training, I cannot see the difficulties that Col. Puntis has outlined. When I was Home four years ago, I spoke to several Quantity Surveyors on the training of Quantity Surveyors, and they said the practice there, which is developing, is that the Quantity Surveyor student should have the same course as the architectural student for the first three years. I think that is very sound. And then after that no University could help a Quantity Surveyor in his training; after that I think it is entirely office work, so far as the quantity surveying student is concerned. So that, to answer Col. Puntis, I think the students in quantity surveying should be recommended to take the first three years' architectural course, and then the training they will undoubtedly get in practical work, in the architectural department of the Public Works, will be all that is necessary to turn them out as finished Quantity Surveyors.

Col. HURST: Mr. President and Gentlemen: I think we are all very much indebted to Professor Pearse for what he has told us this morning. To a number of us, particularly those who have been connected with the educational side of architecture, in years past, it is nothing new. He has told us the same thing, in other words; but I rather fancy that Professor Pearse has "hitched his wagon to a star." We have really to get down to the average practitioner and the average boy. Professor Pearse will remember in his soldiering days he had red books, service regulations and so forth, which he had to go by. In the early days one had to stick to them; during the War one could not, and often one had to do the next best thing. Had it not been for "the next best thing," many jobs would never have been done. I was particularly struck with what Mr. McWilliams said concerning the pupilage of his boy. I think what Mr. McWilliams told us was the right thing. It is getting down to practical politics in connection with the education of boys. I have had the same experience of boys coming into the office; their mothers come along with a sketch of a boy chasing a rabbit, and on looking at it, I wondered whether the rabbit was chasing the boy. This boy was thought to be a budding artist by his mother. We had him in the office for three months, and I advised him to get out and become a tram driver. As a matter of fact I know one boy in our office who was a budding Wren: he is playing the fiddle in one of the hotels in Durban. And that is his limitation. Another one is a motor mechanic, and another, I think, is a policeman! That is the type of boy you will get brought to you by mothers and fathers, and they ask you to take them into your office. And you try them. Sometimes within a few days you can tell; sometimes you cannot tell under a few months. It would be interesting to me to hear what Professor Pearse does with these boys when they come along here for architectural education. Mr. McWilliams has told us what he has done with his son. Now, if I had a son—I would do exactly what Mr. McWilliams has done with his boy. And I have many times recommended parents to do the same thing: "Let your boy go into an office. If the Architect in that office is worth his salt at all, he will very soon tell whether this boy is fitted to be helped on with

the career of an Architect, or a tramway driver." If a boy is worth his salt at all, if he shows any idea of becoming an Architect, push him on: if he doesn't, push him out. Supposing that boy went in for training in a school, supposing he were a whole-timer, how long would it take them to find out if that boy were fitted to become an Architect or not? In an office I consider that a practical man would find out what that boy is capable of in probably two or three weeks, or two or three months, and he could then advise him what to do, whether to go on with the job or not. If that boy's parents have got sufficient money to keep him at the University here, what is Professor Pearse going to do with that boy? Is he going to be downright honest and say to the boy's parents, "For Goodness' sake, take this boy away and make him a policeman!" In our offices we have to do that. We have to get down to the average boy and the average practitioner. A boy comes into the office. He may be a non-matriculant, but is perhaps an ordinary smart boy, and we have to do the best we can with him. Professor Pearse has cast his eye on Sirius, very high up, but we cannot do it. We have to do the best we can. I think, Sir, that is all I have to say; if I was to say any more, I would only just be repeating what other members have said this afternoon or this morning. But I do ask Professor Pearse to give consideration—I have no doubt he has done it—to what I call the average boy and the average practitioner. Let us get down to brass tacks; we cannot all hitch our wagon to a star. And if we cannot do that, let us all do the very next best thing.

Mr. F. WILLIAMSON: Mr. President and Gentlemen: I would like to comment briefly on the three alternative systems of architectural education put before us by Professor Pearse in his paper this morning. The first, the academic system, receives my personal whole-hearted support. I think it is quite the right thing, whenever possible. A few years ago the academic system came up for very very serious criticism in that the practical side of the training was considered to be very inadequate. I recall that some ten to fifteen years ago the Architects of a very important Society in England, met and decided, in view of the very inadequate practical training of the graduates of an important School of Architecture, that until the practical side of that system received more attention, they would not receive in their offices another graduate from that particular school. To-day I think that difficulty has been got over. The R.I.B.A., during the last few years, in considering the recognition of the courses of many of the important Schools of Architecture at Home, consider this a very important point; they accept the general course, but insist in many of the courses submitted by the several Schools of Architecture that the practical side should receive more consideration. And it is the case I think now in the majority of the Schools in Great Britain that during the fourth and the fifth year, for a period of either three or six months—that is to say, the vacation period—the senior men are compelled to spend that period in a recommended Architect's office, of high standing. Professor Pearse, out here, I think has introduced a very similar system. But I think it goes even further than that. Realising the demand of the profession for more practical experience in the training of architectural students, he has to my knowledge taken considerable trouble to interview Architects of

this town with the object of obtaining practical experience even for his junior students. I think the system, personally, has worked very well. But still I feel, after hearing the discussion this morning, that in the minds of the profession as a whole, that the practical side of architectural training has not yet been fully met. I personally think it has. And I think that whenever possible Professor Pearce's first alternative, the full academic course, with every consideration and attention given to the practical training, the practical office experience, is the ideal system of architectural education. I would now, Sir, like to revert to, I think, Professor Pearce's third alternative, which was the articulated pupilage system. That system which has been the general practice in Europe for many years, can be good, as detailed by Professor Pearce this morning, when he referred to Soane and other leading architects. But to-day I do not think it is equally applicable, in that, as I think Mr. McWilliams said, the average practitioner to-day either has not got the time, or certainly does not find the time, to devote to the careful consideration of the training of his pupils, whether they be articulated or premiumed or not. Personally I would like to refer to my own case, and mention that I myself served three years in an Architect's office at Home as an articulated premiumed pupil. I would not go so far as to say I consider that time to be wasted, but I consider that had those three years been spent as portion of a full academic course, that time would have been better spent. I felt I had learned a lot in construction, office routine, and the practical side of the training. Although I did not ignore the academic side, in that during that period I did attend courses equivalent to Professor Pearce's diploma courses here to-day, yet I felt that in design, in many of the subjects with regard to which office practical experience cannot help one, I was extremely weak. For that purpose I went to what I considered at that time to be the most advanced School of Architecture, or Faculty of Architecture, in England. My knowledge of construction and of office experience, and my previous three years' training, whether it entitled me to the name or not, at all events was responsible for a title I received within a few days of my entering into that School of Architecture: I was known as the senior student. I was known as senior, although I was only a junior in that particular course, primarily because of my comparatively good knowledge of practical architecture, office experience and construction, iron and steel construction, reinforced concrete, and the other very important subjects with which one comes in contact in an office. I nevertheless revert again to the opinion that the articulated system is not a good one to-day, that in actual practice it is not satisfactory. In many cases a premiumed pupil feels that he doesn't want to work: there is no need for him to work. He feels he is justified in being lazy, if he has that tendency, and in handing over difficult portions of work to a paid assistant. That tendency does undoubtedly exist, and I personally, for this reason would like to rule out of consideration the system of articulated pupilage, or at any rate, as one which should receive our very serious consideration. I now refer to alternative two, which I think is the most contentious alternative of the whole lot, and one I think which should suggest a happy compromise between what many consider to be the too idealistic system of Professor Pearce, in his first alternative, with the better portions de-

ducted from alternative two. Alternative two presents very many difficulties. Professor Pearce complained that architects in the Union tended to train, or to accept in their offices youths they were not prepared to train, or at all events had not the opportunity to train, and that as the result, many very poorly trained architectural assistants were at large in the country; men without any very definite training, and men whose general knowledge was extremely weak. I think there is a lot in that; I think we Architects as a whole are to be seriously reprimanded for what is undoubtedly a very bad practice. But, on the other hand, speaking from the point of view of the average Architect, I would like to remind Professor Pearce that a junior assistant is required in an office. An office boy is required, and when an Architect employs a boy, he does not employ him in the first instance, in many cases, with the idea of training that boy. He employs him as a junior, as an office boy, as a boy to make blue prints, and similar comparatively small duties. I frankly admit that many an Architect does not consider the welfare of that youth, but advises him that his only outlook in life, if he intends to stay there, is mediocrity, is the position of a draughtsman. And I think, too, in the majority of cases the average youth is quite satisfied with that position. He has no very great aspirations; he does not aspire to become an Architect. In many cases I have found that he is quite satisfied to be in a junior position in that particular office. But the position nevertheless is that Architects do require junior assistants in an office. Then there is the responsibility of the Architect—and here I agree entirely with Professor Pearce—towards that boy, if he finds that he has a natural aptitude for architecture, and he finds too that he wishes to persevere and to study to become an Architect. That youth's position is usually extremely difficult. He becomes of certain value after three or four years in the office, and in many cases I know becomes a very valuable assistant; not a well-trained man, but a man who, due to three or four years' experience with a particular Architect, has got that Architect's own views and ideas and has become almost invaluable to that particular office. That I think is the biggest difficulty; that is the only serious difficulty, and the only difficulty which will prevent me from too whole heartedly supporting Professor Pearce in what I consider to be his rather too strong plea for the academic course. It is for that reason I would like to suggest, for the consideration of members, a possible fourth solution. Mr. McWilliams in quoting his case, I think, expressed the point: I think myself, and I am sure at this stage Professor Pearce will agree that in his experience, many budding Wrens, many budding Architects, take a long time to bud, to blossom at all events. And I think in the case of his first degree man here, we felt—Professor Pearce and other members of his staff—that it was unwise to advise that boy to proceed further, that he seemed to see things, as it were, "through a glass darkly." He seemed to make no very definite progress. I think I am correct in saying that this youth was extremely disappointing in the results he produced for the first three or possibly four years. But suddenly he seemed to wake up to the fact that he had been attending to his studies and his general training in quite the wrong way. Within three or four months the change in the work produced by that student was really very surprising indeed. I digress here, rather, but I do so with

the object of attempting to suggest the following point, that a little earlier experience, either in an office or in a school, is advisable, in the case of the average student, before it can be known whether that aspirant to the profession is likely to be advised to continue, whether it is advisable that he should be advised to carry on or to drop it. And it is for that reason I would like to support Mr. McWilliams when he claims that it is a good policy, for the average youth, to spend a certain period in an Architect's office before deciding to take up the full course. And I would like to suggest that the possible solution is, or lies, in the direction of advice to parents who intend that their sons should become Architects, that their sons should be placed in some office, to be recommended possibly by the Council on Architectural Education, for a period of probation, and that subsequently it should be compulsory for them, provided their parents were sufficiently able financially to do so, to then send the students to go through the full academic course. The point has been made of the useful experience a youth would gain in an office—and here I am doubtful as to what time to suggest. I would suggest possibly a couple of years as being sufficient. But after that period the ideal system of training, provided the youth is sufficiently keen and shows a natural aptitude for his future profession, is, that it should then be compulsory for him to attend a full degree course. I would like to suggest that as the fourth solution, as one which might get over the difficulties which arise in Professor Pearse's three previous alternatives.

THE PRESIDENT-IN-CHIEF: I don't know what to suggest, gentlemen: whether Mr. Williamson's recommendations should come in the form of a recommendation to the Central Council. However, I don't think you should make any recommendation or resolution yet, until you have heard Professor Pearse's reply.

Mr. WILLIAMSON: Mine were only suggestions, Mr. President.

Mr. A. S. FURNER: Mr. President and Gentlemen: I would like to state quite definitely I am a strong opponent of a part-time course, when the part-time course partakes of anything in the nature of an evening class. That is where the drawing and the majority of the work is done by the student, after office hours. I think that has received the wholesale condemnation of all European civilised countries, and I am very glad to-day that very few arguments have been put forward in favour of such a course. I am, as a matter of fact, in many ways in favour of a certain type of part-time course. I have always been a tremendous admirer of the French system of architectural training, but I do appreciate that that type of training cannot be adopted in an English type of country at the moment. It is not suitable to the English temperament or characteristics. I won't give you the details of that course; probably you would find it rather uninteresting. We have heard to-day a good deal about ideals and the idealistic nature of Professor Pearse's paper. Gentlemen, I think that is absolutely fallacious. Every suggestion that he has put forward has the full support of the Royal Institute of British Architects; it has the full support of any educational body for architecture in any of the civilised countries in Europe. It is not an idealistic course in any shape

or form whatsoever. It is a practical solution to the difficulty. Now, while admitting that, I do admit that there are certain difficulties in front of us. Mr. Howden, in his opening remarks, voiced one of those difficulties, and that is the question of the junior, and wrapped up with the junior you have the whole difficulty of the poor student, the student who is not in a position to take a full-time course at the University and incur the expense that that entails. Now, we have at present the diploma course, which consists of lectures at more or less convenient hours during the day, and the student comes up for those lectures. He does his drawing in the evening, once a week, from half-past five to half-past seven. And under the circumstances the results produced—I should not perhaps say this—but I think they are really rather remarkable. But it is hopelessly inadequate for an architectural training. The sketch designs are done at night quite well, but that student has no idea at all of the difficulties of serious architectural design. Now, it would give you an idea when I point to the whole of those drawings in that room that—excluding the sketch designs—I think I am right in saying, only two are done by students under those circumstances. There are one or two drawings which are finished drawings prepared by diploma students. Those are prepared by the more enthusiastic students who have realised the value of the full-time training and have actually given up, sacrificed, their salary at the office, for two or three months, and come up to the day school. There, Mr. President, I beg to suggest is one of the methods of getting out of our difficulties of the junior. The student need not give the whole of his time to the work, but by some alternate system, surely it should be possible for one of these juniors, or one of the poorer students who must take the diploma course, to alternate with another student in the same office, taking say three months at a time for some specific time at the day school, alternating with one another in full-time work? That seems to me to be a fairly happy solution to that particular problem. Of course the acute want of juniors in Johannesburg is very noticeable at the moment. In a few years' time that will not be so acute. You will have your fully trained draughtsmen turned out, and to begin with, he will not require a very big salary. That brings up another point. There has been a great deal of criticism of the full-time course on the score of development of character; personality and general practical experience. Now, nobody is going to admit for one moment that a degree student, compared to a diploma student, at the end of his five years' course, can be compared as far as his usefulness to an Architect is concerned. The diploma student is going to be far more useful, because he has had five years' experience in an office, whereas the degree student has had the equivalent of six months. But give that degree student one or two years' experience in an office, and he will be worth three or four times the other man. Why? Because his imagination has been developed. Now, we have heard a great deal about practical experience, and a knowledge of the trades and that type of thing to-day. That is absolutely essential, of course, to a trained Architect. But that can be obtained later; imagination cannot. If you stultify a young student's ideas by pinning him down to the hard routine of an office in his early days, when his mind is most impressionable, then you are handicapping that man very seriously. When all is said and

done an Architect's chief function is based on his powers of imagination, and for that reason I should rather take arms against the suggestion of putting a student into an office. Now, Mr. McWilliams is an Architect. Mr. McWilliams knew exactly which was the right office into which to put his son. He was in a fortunate position, and if you can find the right office into which to put a boy, I think the scheme is probably a very good one. But what guarantee are we going to have that that office is the right one? A really brilliant Architect is not necessarily a good trainer of the young. There are certain Architects who have very very definite ideas, and a very very strong personality. If you put a young boy into that office, straight from school, very impressionable, he will be so impressed by that personality that he will take years to get out of it, and he may never be able to develop his own properly. I have had a fair amount of experience of teaching bodies in England and here, and I say that students who have come from offices, as a rule, have more to unlearn than to learn. I have put it rather strongly, but I mean they would spend a long time in unlearning, because of certain things they have learnt which is not for the good of their general training. If you can guarantee a good office, I think it is an excellent system, but otherwise I think it is liable to give us a great deal of trouble. I have had experience of that on several occasions and realise the importance of it. Now, one of the biggest problems, it seems to me, we have to face to-day in considering this question, is the question of the smaller towns and centres in the Union. That is a very big problem. With the wealthy student, of course, there is no difficulty; he can come up to one of the big centres. With the others to my mind the happy solution seems to lie somewhat on these lines—it is not worked out in any detail—that is, that in certain of these smaller centres there are technical schools, and I should suggest that under these circumstances arrangements be made with those schools, and that some control by the central educational authority be held over those schools. So that for the first two years of a student's life, he can get elementary history of architecture, elementary building construction, elementary graphics. That should offer no difficulty; they are comparatively easy subjects to teach. If we had some working arrangement with those educational centres, that on completion of that time the student could come up either to Johannesburg, or Capetown, he could join up in the right place with the full-time course. He would in those two years have had enough experience to earn sufficient in Johannesburg possibly to keep him in something more than pocket money. It seems to me a very practical solution. It is based on the French system again, the smaller local centres carrying out the elementary work. I merely put that forward as a suggestion, Mr. President, if it is worth while considering, to be developed. Finally, this question of the testing ground. Mr. Williamson has already spoken on that. I defy anybody, whether he be the biggest genius in this world, to say whether a man is going to be a capable Architect until he has had two or three years' trial. I defy him to produce a reliable estimate of that boy's capacity.

THE PRESIDENT-IN-CHIEF: Where?

Mr. FURNER: In his own office he can find out, but you must give a boy a long time to find him out.

I would just like to quote another example in support of Mr. Williamson's. We had a student at London University. We absolutely despaired of his work; it was terribly hopeless and incompetent. I should think for three years he went on like that. Within six months of that he won the Victory Scholarship, and is now earning a very big salary, within about two years of that, as a very competent Architect in the Middle East. I maintain, possibly I may be a biased teacher, that the teacher is really more capable of finding out the worth of a man than an Architect. But I may be wrong.

THE PRESIDENT-IN-CHIEF: It looks to me, gentlemen, as if it were quite possible to put the suggestion to Professor Pearse of adding a fifth alternative to Mr. Williamson's fourth, by which a student should be enforced to put in five or six years, two of which might be spent in an office, and it would be in the discretion of the University authorities to say at what stage he should be in the office. That is, it need not be cumulative in either case; spend three months perhaps, or six months, at a time. But it looks as though we are aiming towards something of that kind. And as to whether it is better for the student first to be two years in an office, and afterwards in the University, may be a debateable point. But the difficulty I raised, of the necessity of Architects having assistance, would be got over if a compromise were arrived at, that two out of the five or six years were spent in an Architect's office.

Mr. FURNER: May I say I only put the question of the diploma course as a second best to the full-time course.

Mr. McWILLIAMS: Mr. President, I am claiming the privilege you offered of making a second speech. In the first place I think it was Mr. Spicer who said I had not stressed the matter of the particular office in which the boy was placed. Well, when I was in London I consulted the A.A. authorities on the matter, and they said that they were prepared to accept a pupil as having had two years of the course, provided that they were satisfied that the office in which he had been placed was of a sufficient order of merit to warrant their taking that action. I quite agree with many speakers, and I certainly agree too with what the last speaker has just said, that there are many offices in this country in which a boy might be placed for two years, and it might be almost impossible to take from him the bad that he had gained while in that office, because we all know—we see the examples of it in our streets—there must be some terrible designs worked out in some offices. And for that reason I think it is a very wise policy on the part of the Architectural Association that they reserve to themselves the right of accepting a pupil, and counting the period as a part of the course. I suggest perhaps, Professor Pearse, if such a thing were decided on by the Institute as being a method, would, of course, be perfectly entitled to reject a pupil if he did not consider the place in which he was trained was likely to have brought him to the stage of having those years accepted as part of the course. In a small town, even a town such as Johannesburg, it might be very difficult for Professor Pearse to draw invidious comparisons like that. It may be almost an insuperable difficulty. But, Mr. President,

I mainly got up to speak about something I intended to mention when I got up in the first instance, and this is a matter that I am particularly anxious that the Press should report. It is in reference to the very excellent exhibition that we have in this hall at present. I had an opportunity of seeing exhibitions of work by the Liverpool University, by the Architectural Association in their own galleries, students' work in all years, and at the R.I.B.A., galleries, works by the Glasgow School and the Cardiff School and many other important architectural schools in England. And I can say without any hesitation that the work that we see in this hall bears comparison with anything that those Schools produced, as far as I could see, in 1925. In some respects, Mr. President, I consider that the work excels that of the institutions I have referred to: in respect, I would say, of working drawings. I made a careful examination of some of the working drawings here, and I would like to congratulate Professor Pearse, and to say that I consider that his students have turned out marvellous work. And had I known that the Witwatersrand University was equipped with the magnificent libraries which I understand from some of the books I have seen this morning were in the possession of this University, I would certainly have considered very seriously sending my son here instead of to the A.A. in London. The great object I had in sending the lad overseas was the matter of seeing actual monumental and other large public and historical buildings in London and other places, especially on the Continent, where these things are so near at hand. But the next best thing to that is a beautifully equipped library such as you have on the Witwatersrand here; and it is very fortunate indeed for Professor Pearse that he has met with so many very good friends and supporters. I do hope that the press will not fail to express the appreciation of the members here of the magnificent exhibition of students' work which we have seen, and which gives one every confidence for the future of this School of Architecture.

Mr. HAROLD PORTER: Mr. President, no one has given us a solution of the Architect's economic difficulty with regard to the junior. If these students are all going through a long course, and are to appear for the first time in an architect's office after five years, they will then expect a fair salary.

THE PRESIDENT-IN-CHIEF: They would not be juniors then.

Mr. HAROLD PORTER: That is so: they would not be juniors then. I would like to hear some views of what the solution of that problem will be. Where is the Architect going to draw his junior from? The other point I wanted to refer to is one which Mr. Furner was speaking about, that the part-time students, with the exception of two, I think he said prepared certain drawings. He referred to the students as having left the office, taken certain time off and prepared the drawings during the whole of the time here. Well, he infers by that that the student in his other time is studying some other profession—he may be a motor mechanic; but I think he loses sight of the fact that he is in an Architect's office learning a certain amount all the time. He is doing drawings, and very valuable drawings, all the time. Therefore he is not

losing by not being at school. I think he must realise, if he is in a good office, that he is learning a fair amount all the time.

Mr. H. W. SPICER: Mr. President, I would just like to reply to that question. It is a very easy question to answer, and that is, you have your professor within easy reach by phone. You can make inquiries about any student who has attended the classes, and he will give you all the particulars about that student. And he will also help you with regard to the question of remuneration. He will give you any advice you seek. And if there is any doubt, as far as the members of the Congress are concerned, in regard to students attending the classes, it is only natural you should seek it at the fountain head, in the person of your professor, who will give you all the advice you desire to have. I might mention that I recently had occasion to inquire about one of the students, and Professor Pearse, totally unbiassed as far as the student is concerned, as you can imagine a professor would be, gave me all the advice I desired to have. And I think that, Mr. President, is quite a simple matter, with regard to the question of pupils, and the office boy, and so forth. I would like to refer to Mr. Furner, who has been mentioned very little, as far as the question of help is concerned, and I should like to say as Professor Pearse has frequently put it, that he is his right-hand man. Unfortunately we are going to lose him shortly, but not as far as South Africa is concerned, thank goodness! He has done a tremendous amount of work in regard to placing the brain-work, the vision, on to paper. Now, the whole of that question comes back to the practical issue. He not only teaches the boy how to express vision on paper, but he also helps him to form the constructive portion of that design, and to develop it, with the aid of Professor Pearse and himself to bring it to its practical issue. Then there is the question of the boy entering the Architect's office. It is the question of human nature; it is a study of character. Once you get a boy into an office, as Mr. McWilliams has said, a defective office, it formulates his character; and it is the greatest difficulty in the world to get that boy out of that view when he leaves that office. The seed has been sown and it has grown and developed, and you have got the greatest trouble to root out that weed from that boy, and I do impress upon this Congress, that Professor Pearse has got to take up a very high standard, and we have got to support him in his high standard. Some of the members of this Congress have said he was looking at the stars. Well, naturally, he is a professor of a large University, covering a wide district; if he did not take that high ideal, he would not be worth his salt. Therefore we have got to support that ideal. Now comes the question of the practicability of working out that ideal. The question, as Mr. Furner put it, of obtaining assistants in the office, is undoubtedly going to be troublesome for years to come; perhaps not for long, but for some time at any rate we will have that difficulty of obtaining assistants, whether junior or not. But, as Mr. Furner ably put it, that trouble will cease; it is not going to take very long. Then again he expressed the very important view of the whole-time student, who, when he gets into actual work, is going to rapidly pass the part-time man; he is going to be much more useful to the Architect in a shorter period.

Mr. RITCHIE FALLON: Mr. President and Gentlemen: In rising to speak to the subject this morning, I dealt in a way with what they were doing at the Cape. I am afraid I did it very badly. I regret very much that Mr. Gregory, who is the lecturer in charge at the Cape School just now, was not able to come up to this Conference this year. He has gone over to Europe. In dealing with what they were doing in the Cape, I was not in any way defending the Cape's method of at least three years whole-time studentship before they entered into the offices. But in mentioning that I would like to state that it is a possible alternative, where it is impossible to run a five years' course. With the present state of education, not only in this country, as far as our profession is concerned, but in other parts of the world, particularly in view of the World's Conference that was held a few years ago, I don't see that there is really much harm being done in one of our schools being on slightly different lines to the other. From time to time we propose to hold these Conferences, and I always hope that education will be one of the most important subjects that we will have before us. As far as to-day's discussion is concerned, I think we have every evidence of the subject being near to the heart, of those who have attended Congress, anyhow. It has also struck me that nowadays the pupil, uninitiated into any knowledge of his profession by a school, entering the Architect's office does not get nearly the chance that the old-fashioned pupil, even going back to my own day, had. To-day is the day of machinery. Working drawings are prepared on tracing cloth, or some other such medium; they are simply put through the machines. In my days I had to learn my construction, because I couldn't tell what I was tracing unless I did know it. That has gone now. The youth coming into the office becomes more or less an office boy; he works the machine. There are several other little items in the way of machinery in an Architect's office that apply in the same way; I don't propose to take up your time on that. There is one point I would like to raise—I don't know whether it was dealt with during my absence—in reference to the weeding out process. I feel there are many boys who enter the profession and who are allowed to continue, when they are absolutely valueless. They really have no call in the profession at all. And in Professor Pearse's reply I should very much like to hear from him as to whether, say during the first year, or at the end of the first year, it is his practice to advise some of his students not to proceed any further, or to very carefully consider the position before they do. I think that sort of advice would come much better from their Professor, than from their office chief, and in a much more disinterested manner, possibly. I don't think I need add anything to what has been said about Quantity Surveying, except that after Col Puntis' remarks this morning, and the need for Quantity Surveyors, I hope Professor Pearse will soon find it possible to put up courses for Quantity Surveyors. I should very much like to see that going with as little delay as possible. The other section of our Institute, the Quantity Surveyors, are not nearly in so good a position as are the Architects. They have not got going with their educational programme, and I think every effort should be made both by the quantity surveying section of the Institute, by the education authorities connected with our profession, and by the architectural section, to assist the Quantity Surveyors to get their school going on sound lines, as soon as pos-

sible. There is one thing I would like to remark about Mr. Cowin's contribution, that the student should really get a working knowledge of everything that passes through his hands. But with the range of our profession at the present day, I feel that life is really far too short for that; it is almost impossible. One would be an old man doddering round and wondering if he would be able to finish his little service of time before he could think of becoming an Architect; he would lose the vim of his youth. And if he really became a qualified Architect, he would really be too old to take any joy in the practice of our profession.

PROFESSOR PEARSE (in reply): Mr. President and Gentlemen: I would like at the outset to speak about this star to which I am supposed to be asking you to hitch your wagon or mine, and to tell you frankly that I did not suggest anything of the sort. I would like once more just to reiterate, quite emphatically, what I said this morning, and that was, that it is difficult to say definitely at this stage which is the best system. When I outlined the systems, I did not propose that one was better than the other. I pointed out the disadvantages of each. And finally, and this is where perhaps many of you misunderstood me, I quoted from the report of the R.I.B.A. Committee. And it was that, I think, that gave you the impression that these were my own ideals on the subject. I said, "The Committee believes that whole-time architectural courses provide the best way of training to-day, though the genius will flourish in almost any surroundings. At the same time the Committee recognises that want of means often prevents students from attending a full-time day-school course at a distance from their homes." And then they say: "Looking into the future the Committee believes that the profession of Architecture will ultimately demand as strenuous a preparation as those of Medicine and Law." I want to make it quite clear, therefore, that I did not say that I thought the whole-time courses were the ideal. I wanted to put the three before you, and get the views of the profession, because I think it is a matter the profession must decide. We cannot dictate to them here. Let them say what they want, and we will do the best we can to assist them. As far as the full-time courses are concerned, let me say right away that I have no fear or worry about their success. We are getting students now from all parts of the country; we are getting students from Rhodesia, Natal, the Free State and the Transvaal. And from the way they are coming along, I think within the next few years we will have a very large school here.

Now, in reply to some of the points that were made by different speakers. First of all, Mr. Howden mentioned the question of juniors, as did many others. So I will refer to that point first. I am not concerned with junior clerks and juniors who are going to become mere draughtsmen; numbers of whom, as stated in the R.I.B.A. report, are being turned out to-day in England and are drifting into various offices, men who have got no ambition beyond being mere draughtsmen. I am not concerned with these. If the profession likes to continue to turn them out, it is surely no concern of mine. The only persons I am concerned with are the part-time students who are ambitious, and, of course, the full-time students. The one point I do want to stress again is that everything depends on the office into which these men get, and I think it is

only right that I should give you one or two concrete instances at this stage. I could give you many, because these students frequently come to me and pour out their troubles. One student, well-known to many of you, went into an Architect's office. His father, I am told, is in receipt of a large salary and was informed by this Architect that it would be very much better if he came to his office and obtained practical experience. He went into that office, and was there for eighteen months, I believe. At the end of that period he asked his employer whether he could not give him a salary. The Architect said, "No, I am teaching you. If you want a salary, you will have to go elsewhere. I can get many boys to take your place." The boy therefore left and went to another office, a smaller office, and the man who was in charge knew little about architecture. By the end of another year, this boy had got a fairly thorough working knowledge of elementary construction and elementary design. He became a senior assistant in that office, and so much work devolved upon him, that he could not attend his classes. He has been to see us once or twice about his position and feels that he has been very seriously handicapped. Now, isn't that a case that should be looked into? In another instance the boy was advised by an Architect to go into his office and not bother about full-time classes here. He also came to see me about it. Well, he was very discontented, and realised that the three years that he had spent in this Architect's office were almost wasted. I persuaded him to go to Europe; or rather, he made the suggestion to me, and he has gone over there, and I have no doubt he will do well. There are innumerable other cases, dozens in fact, of architectural students who have come to me and begged me to approach other Architects with a view to getting them transferred. We have a case now of a boy who is really well worth encouraging. We are in a very difficult position about him. He has worked tremendously hard, but is in an office where he cannot possibly learn very much. This boy says that he cannot transfer to another office, because it would put him in rather an invidious position. He knows his employer well; he has been very good to him and considers that he has trained him. He thinks therefore that the only solution to the problem is to go overseas. Well, it is going to be a hardship I know for that boy but he considers it to be the only way out of the difficulty. These cases illustrate my point, and that is the point stressed by the R.I.B.A. in their report, in which they urge all practitioners to consider the question when taking in juniors. Then there is another point which I did not stress this morning, but which was raised by Mr. Fallon, I think, and by Mr. Cleland and one or two others; the question of experience. A student comes here and takes his first year course. The actual terms occupy only about six months in the year. We place him at the end of the year—or rather we are trying to do it in the first two years, but at present there are so few good offices available; we put him into an office for two or three months, during the long vacation. He comes back again and finishes his second year, and he has another three months in an Architect's office. The same thing applies with the third year. Now, it is those first three years that are the all important ones. At the end of the third year, if the boy has passed his examinations—I stress that point, because I had a case of a third year boy who went to an Architect; he told him he

had completed his three years but actually he had not passed his examinations, and this Architect naturally complained about him—if a boy has passed his examinations and gets through those three years in this University, I think I can say emphatically, and Mr. Furner will agree with me, that he is going to be a very useful assistant. If you will take the trouble to look at some third year work in the Exhibition by a student who has just completed that year, and look into the drawings, the working drawings—I would also like the Quantity Surveyors to criticise them and give me their criticisms—I think you will agree that the work turned out by that student will hold its own with almost any architectural work anywhere. Now, in the fourth year they come here for one term only, which lasts about three months. They then go to an Architect's office for a year. After that they come back here and take their final. So you see practical experience is wrapped up in the full-time course. Mr. Furner has stressed, and rightly so, too, that a student who has got his degree and goes into an Architect's office, lacking that training that many of you stress, of rubbing shoulders with builders and meeting clients or workmen, will very soon pick up all that is required as he has had such a sound five-year training here, that in less than no time he can hold his own with any diploma student who has had five years' practical experience with a part-time training. Our results have proved that conclusively. As you know, the school has only been in existence for about six years, that is, fully in existence; it started in 1921. In our first year we only had one student, and we really made a start in 1922. At the end of our first five years we submitted all our work to the R.I.B.A., and got recognition. That I think speaks for itself. Now, with regard to the question of finance, which, of course, affects a good many students. I venture to say that of the part-time students here, and there are only between 20 and 25, at least 60 per cent. of the parents could send them here for the full-time course or at least a year or two of it. It is only because they have been advised by Architects not to, that they are not here. Some of them have come along and asked if they might come here as diploma students and do some of the full-time work; they have given up their employment to do it, because they realise the advantages gained thereby. So that that, I think, is the crux of the whole situation. If the Architects would "play the game"—I know of half a dozen or a dozen offices in Johannesburg where a student can get a very sound training, and be given every encouragement to attend classes, and time off to take the examinations. But some Architects carp even at that. They grudge it. And I think there again the Architects are not altogether "playing the game." After all, they are getting those boys for a mere pittance; getting cheap labour, you might call it. I think they ought to give those fellows facilities, as many facilities as possible, and take an interest in their work, and even go to the extent of getting a report at the end of every year as to whether they are slow, or want a little encouragement, so that they can also assist them. Those are the fellows we are most concerned with. As I said this morning, that state of affairs, that part-time system, is likely to go on for many years. I would like here to emphasise the point that in my opinion the ideal system is practical office work with school training. That is the French system, and it is the ideal one. I emphasised that this morning, so

that I cannot understand some members saying I have "hitched my wagon to a star." I did not say that in my opinion full-time training was the best. I referred to present conditions in South Africa, which are likely to continue until we get more practitioners who will run their offices properly, who, with the training they have had here, will get together as they do in America and France, in groups, with a joint library and all the necessary facilities, and become the professors of architecture. The practitioners in France are the professors, that is the big practitioners, and the schools merely do the theoretical work that is necessary. It is in those big ateliers connected with the French architectural offices that the students get really well trained. Two or three speakers rather stressed the point that the Architects should have the boys first and make the decision. Now, that is a thing I think you should consider very very carefully. After all, we who are teaching here have had a good deal of practical experience; we, I think, can judge as well as most of the practitioners whether the boy has got it in him or not. We give him tests here that he will never get in the office: tests of imagination in design, and those are the things that count. Col. Hurst, I think, asked me to answer a question on that point, as to what the University does with a boy who is not promising. Now, if a student comes here for his first year, and at the end of that year he fails in his examinations—we take his term's work into account as well—if he shows particular ability in draughtsmanship, during that year, we give him every possible encouragement. But if he is hopeless in that respect as well as in his other studies, we advise his parents to take him away. We have had boys who have been here for three years. One boy has gone farming. He left us, went to an Architect and said he had had three years in the University. The Architect tried him for a month; and he went farming. We advised him to give it up. We had another boy whose father was a builder, and he was very anxious to make his son an Architect. He failed for two years running, and is now in a bank. And so I could draw an analogy between what Col. Hurst does in his office, and what we do at the University; I could mention dozens and dozens of others. Do you really think we are going to keep men here for five or six years if they are no good? What would happen to this University if at the end of that time we sent them back to their parents and said they were no good? We make every effort, therefore, to divert those boys, and it is at a University that this can be done much better than in an office. Here in this building we have got architecture, civil engineering, mining, mechanical engineering, electrical engineering, all being taught. The students are meeting, comparing notes all day long. They see each other's work; they get a good insight into each other's work. At the end of the first year most of those boys can come to a decision, if they want to make a change and that is the time to do it. Now, can they do that in an Architect's office? If they fail at the end of the first year, and the Architect gets rid of them, they know little about these other professions, and they have got to take a chance again. That is what it amounts to: taking a chance, trying another profession and having the same failure. Whereas here, by seeing other professional work, and seeing that it is more to their liking, they could naturally change over to it. And the other point I stress so strongly, is that

all part-time students should come up here for lectures during the day and get an insight into University life, because of the enormous value that is achieved by these students of different professions meeting each other. When they go into practice later on, they appreciate each other's difficulties and are of assistance to each other. If the architectural students who are in offices, don't do that, but only come up to evening classes, they cannot come into close contact with the other professions. They only come into close contact with one or two assistants in their office or in other offices, and the builders and callers that were referred to. Somebody said a great advantage was to be gained by their meeting callers and agents selling goods. I don't see much advantage in that; not nearly the same advantage as meeting men in other professions. Well, as I explained, there are very few of these part-time students who cannot afford to come to the University and of those part-time students, some of them get bursaries and therefore get their education free. And quite a number of the full-time students can get a free education. After all, they have matriculated; they have been through a high school where they have received free education for so many years. And if their parents want to make them professional men, there are many opportunities of doing so. There are a large number of bursaries and maintenance scholarships available. I think I have covered most of the points made by different speakers. Mr. Williamson made one or two remarks that rather support the idea of the decision being made by the Architects themselves. I would like the profession to consider that. If the profession feel that that is the ideal solution, it has nothing to do with us. But I frankly do not. And I do not think the Architect, if he is a busy man, has a real opportunity in that first year of summing up a boy's capabilities; he may think he does, but I don't see how he can. Mr. Williamson mentioned, I think, that a student had been advised not to proceed any further. I don't think he was quite right in saying that. This student did very badly in his first year, and failed, but he came back. He was an Architect's son, and was a real problem. He went right on through his five years. You will see some of his work here. He became so keen on research that he has now gone to Spain. He worked here for a year in the Railway Offices, on the new station. At any rate, he is now in Spain, and is full of enthusiasm: he is doing research, and he hopes to publish it on his return, and it will probably be a really useful contribution to the practitioners of this country; work that it is very difficult to get in book form. He was the first degree student and it is these students who, by taking the full-time course, will produce such work.

There is one statement I would like to make in fairness to ourselves here. In the first place, I do not quite agree with Mr. Cowin's ideas of training. I myself had such a training and it was an absolute waste of time. I spent some time in workshops too, also a sheer waste of time, to my mind. And to propose that students should get that experience first-hand—he stated he put his son into one of the particular trades—is not, to my mind, the soundest method of commencing a professional training. Then he spoke of slacking in the University. If a boy is going to slack in a University, he is going to slack in an office as well. That is where the boy's aptitude for the work

comes in; if he is keen on it, we give him all the work and assistance that he requires. The point I was coming to was this: I think Mr. Cowin might have given some little credit to this school for that successful student, whom, from the way he said it, he claimed as his own. We had that student here and he was doing very well indeed; a part-time student; one of the keenest. He used to come up here whenever possible for assistance and advice. At the end of his third year he decided to go to Europe. Within a month of his arrival he won a travelling studentship. I was informed that it was the first time it had been won by a third-year student in the history of that School. Now, Mr. Cowin took all the credit for that; I think this University might be given credit for a little of it. I am sorry he is not here to reply.

With regard to Quantity Surveyors, I want to frankly state that I don't yet know, as I have not had a chance of discussing the matter with them, what they really want. I have gone through the syllabus of the Surveyors' Institution, and we can offer most, if not all, of those courses, here, except, as I told you, the full practical quantity surveying course, which, having taken a very full course in quantity surveying myself, I know can only be done by a practitioner. I think, if the Quantity Surveyors, would agree to meet us (I believe under the Act we have to draw up a course), we could give them what they want, even to land surveying, which our students can take here. Quantity Surveying students have come up here on Wednesday afternoons, and we have arranged with our Professor of Surveying to give them what they require. I should be glad to answer any other questions. I think I have covered all the points that were raised, but before concluding, I would like to thank Mr. McWilliams very sincerely for what he said about our work, and to take this opportunity of telling you that it is all due to Mr. Furner, and not to myself. You have no idea what a great debt we owe to Mr. Furner. He came out from an excellent school; we were groping about in the dark, and were uncertain what method to adopt. He came along and he brought with him what we have termed the French method of instruction in design, and put it into practice right-away. We are very sorry to lose him, but we know that he is going to be a real asset to the profession. I would like to take this opportunity of telling delegates from other centres how much we are indebted to the Architects of this City, and to the old Society of Architects and the Association of Transvaal Architects, for our wonderful equipment. When we adjourn I would like to show it to you. We have got a library which is second to none; it is being supplemented by a gift from New York, a gift from the Carnegie Corporation, valued at over a thousand pounds, which is due at any time now. Our library as it is, however, is very well equipped, the nucleus being the late J. M. Solomon's collection, which was purchased jointly by the Architects here, Lady Phillips, the Council of Education, and Mr. Burton. I am sorry this morning I had no opportunity of saying how much we are indebted to Mr. Burton for the wonderful assistance that he has given us. It was he who helped to push on with this school; it was he who has encouraged us in every possible way. And, with the exception of himself and perhaps some twelve or fifteen members, of the Council of the Association of Transvaal Architects, we have had little or no assistance from any of

the practitioners here. It is thanks to their efforts, and to those men who put the Transvaal Act through in 1910, and who helped you to get the Act through in 1927, that this school really owes its great success.

THE PRESIDENT-IN-CHIEF: Gentlemen, I am entirely in your hands: whether you consider that the full report which is being prepared of the discussion and the paper, will be sufficient as a recommendation to the Central Council to digest, or whether you feel that any resolutions from this Congress should go forward to the Central Council. Of course, you know that an Education Council has been established, which will attend to, on behalf of the Central Council, all matters in connection with education and examinations. This Education Council is carrying on the work of the original Federal Council, which is a body composed of representatives from the Universities, from the respective Provincial Institutes and the Chapter, from the Government, and it is a thoroughly representative body. It is empowered as a part of the Central Council; the Central Council has certain powers under the Act in connection with these matters, and the Central Council has nominated this Education Council to do this work on its behalf. Now any resolution that you may pass would, of course, go to the Central Council, to be forwarded to the Education Council. Perhaps the best procedure to adopt is that of recommending the Central Council to hand over to the Education Council the paper so ably read by Professor Pearse and the discussion, which has been recorded *verbatim*.

Mr. F. WILLIAMSON: Mr. President, I would like to propose the following recommendation to the Central Council. This is particularly in view of the fact that the discussion this afternoon has been largely based on the education of Architectural students and that the education of Quantity Surveyors has been rather neglected, due perhaps to the absence of the Quantity Surveyors during the greater part of the discussion, who, I believe, were then attending a special meeting of their Board. I therefore propose the following as a recommendation to the Central Council: That the Central Council be requested to draw up a curriculum defining the educational facilities available for the training of Quantity Surveyors in South Africa, and that, if it is found that such facilities are unsatisfactory, immediate steps be taken for the establishment of an adequate course for the training of Quantity Surveyors in South Africa.

Mr. McWILLIAMS: I beg to second that.

Col. HURST: Mr. President, will you allow me to make an apology to Professor Pearse? I said that he had a star; I thought he had a star. I didn't blame him for having a star; I rather commended him. But where I thought the difficulty would come in would be that the student could not "hitch his wagon to the star." I think that is due to Professor Pearse; I don't blame him for having a star, an ideal. Our trouble is that we cannot hitch on to it.

THE PRESIDENT-IN-CHIEF: Gentlemen, with regard to this proposed resolution, might I suggest that as there are now four representatives of the Chapter on the Education Council (it has been raised to four from two), the very question which Mr. Williamson

put forward will undoubtedly be considered by the Education Council. The object of the Education Council is to make those very provisions which Mr. Williamson suggests they should be asked to do. The Education Council has been brought into being for the sole purpose of attending to the whole of the educational system throughout South Africa dealing with every possible position of every student; that is including Architects and Quantity Surveyors. So the very first thing they will have to tackle—we asked them, and the Act demands it—is, they must make provision for education and examinations, both for Architects and Quantity Surveyors. And I do not think, in view of the fact that the Central Council has just raised the representation of the Quantity Surveyors on that Education Council, from two to four, I don't think you need have any fear that the matter will not be looked after.

Mr. F. D. HICKMAN: Might I also mention, for your information, that at the meeting this afternoon we have appointed four very able men for that position.

THE PRESIDENT-IN-CHIEF: I have no doubt, gentlemen, from my experience of them on the Central Council that they will keep us up to the scratch!

Mr. F. WILLIAMSON: If you, Sir, consider the proposition as redundant, I will withdraw it. But I must admit that at the time I framed this proposed recommendation, I was not aware that there were any Quantity Surveyors present. Now that they are here and only too well able to look after themselves, perhaps I should withdraw my proposition.

THE PRESIDENT-IN-CHIEF: Then, gentlemen, will you leave it at that, the Central Council will consider the full report of this discussion and paper, and will then hand the matter over to the Education Council? I think that should meet the whole position.

AGREED.

THE PRESIDENT-IN-CHIEF: Before passing on to the next item on the agenda, Gentlemen, I will ask you to pass a very hearty vote of thanks to Professor Pearse for his valuable paper and for the able manner in which he has replied to the discussion upon it.

ARCHITECTURAL COMPETITIONS.

Discussion Continued.

THE PRESIDENT-IN-CHIEF: Gentlemen, the next item on the agenda is "Competitions," which I understand you were in the middle of discussing when you adjourned last evening. I think I will ask Mr. Fallon to give us a lead, so that we can continue with this particular item.

Mr. RITCHIE FALLON: Mr. President and Gentlemen: I hope we were further than the middle, anyhow. If I may remind you, we had dealt with several matters in this connection. We had had resolutions passed, and a few members still wished to discuss the matter. Before just sitting down I have a couple of notes here which I made: Mr. Payne made some suggestions as to finishing all competition drawings in pencil. I would submit that matters of that nature should be left to the assessors to decide—whether pencil is good enough, or ink. Mr. Powers had made a suggestion as to preliminary competitions. That also I think might be left to the discretion of the assessor. It would certainly apply in some competitions and not in others. Mr. McWilliams referred to perspectives. That I think should fall under the same heading, of the discretion of the assessor. I would particularly like to say in that connection that a lot of time is put into these competitions; they are gambles, anyhow, at least, within my experience. If the assessor does not actually want perspectives, surely he is a man who can appreciate what the thing would look like in actuality? I submit it should be left to the discretion of the assessor.

Mr. McWILLIAMS: Mr. President, I am rather strong on that matter of perspectives. We have only to look at the exhibition in the other room and say which of the drawings there conveys the originality of the scheme; whether it is the plain elevations and plans, or whether it is the perspectives. And I submit, Sir, that if an Architect is a highly qualified man, he should be in a better position to win the competition, the more highly he is qualified. If a man can only think in two dimensions and do plain drawing, I consider that he is hiding half his ability if he is confined to plain drawings. That is my point. Very often you will see an elevation that has been absolutely spoilt through being overburdened with its projecting balconies, or features like that. And if an Architect is thoroughly competent he can throw a little sketch into his design, a little bit of perspective, a thumb-nail sketch that will give an idea what that balcony will look like when it is seen in perspective. I consider—well, I don't say it must be made essential that competitors must provide perspectives—it should be left optional; otherwise you are going to eliminate the best ability that can come into your competition.

Mr. H. W. SPICER: Mr. President and Gentlemen: with regard to Mr. Fallon's remarks, I was not here when the discussion took place. Still, I feel if this Congress was rather emphatic on these preliminary competitions, and also as to whether the competition drawings should be finished in ink or pencil, I think it would be rather a lead to any assessor. We

are here, as it were, to try and prevent some of the recent scandals, past scandals that have occurred in competitions. I feel you should not casually dismiss it; I don't think Mr. Fallon dismissed it in that sense. I think we should have a thorough discussion on this. We have assessors who are perhaps receiving a remuneration for their assessment; they do not care who wins. They perhaps have the feeling that the best design is secured for the building which is to go up. But nevertheless I do say that we should do all we can to prevent any of the past mistakes that have been made; one especially, if I may mention it, with regard to this building we are standing in at the present time. We don't want any recurrences of that. That causes a tremendous amount of distasteful misunderstanding. It means that a tremendous amount of labour is put into these drawings, and, as Mr. Fallon has put it, it is a terrible gamble. We want to prevent this terrible gamble; we want to place competitions on such lines that they will no longer be a terrible gamble. Why should Architects spend fifty to a hundred pounds, and their time and brains and energy, on a terrible gamble? Why, hang it all, they can go in for the Delagoa Bay sweeps, take and have a chance of winning a hundred or a thousand pounds, merely by putting a bob or something into it! I feel rather emphatic on this point. We have recently had competitions, and I have heard Architects remark, "Well, we have had assessors making a report, getting on to the high waters and telling us we know nothing about what we are doing." We don't want that sort of thing. We would much prefer to have a design recommended. The Architect who prepared that design is quite capable of re-designing or altering it; undoubtedly his capabilities would give the clients or the promoters of that competition all they desire. It is these little points that we must be strong upon. And I do submit that the mere dismissal of it, leaving it to the assessor, is entirely wrong. The assessor undoubtedly is placed in a position to give his best advice. But you know the man who holds the golden end of the stick is sometimes enfeebled by the cash fee that he is getting for simply assessing those plans. And then if he has been through the hoop himself, as far as the labour of competitions is concerned, there is that feeling, "Well, I don't know much about these designs which I am recommending, but I feel I could have done it better myself." There is a slight tendency like that to creep in. I do feel I would like to hear other members discuss this matter, and bring up points whereby we can tighten up these competitions. If we do not tighten up these points in competitions, I am afraid you are not going to get the best architecture in this country; men are not going to waste their time on competitions. Many men say, "No, I have done my best on such and such a thing. I have been beaten. But look at the results!"

Mr. D. M. SINCLAIR: I would like to make one remark. Mr. Spicer was not here at the last meeting, when they agreed, I think unanimously, on the Greek system of voting, which does away entirely with Mr. Spicer's fears.

Mr. A. S. FURNER: Mr. President, I was not here in the early part of the discussion, but I feel a good deal of misunderstanding in competitions—not misunderstanding, but unpleasant feeling, is due to the fact

that so frequently the first place is allotted to a design which has not adhered strictly to conditions. That has frequently happened in England, and I think it is a little bit difficult to know how it should be dealt with. But I do feel, in the original conditions of competition as drawn out, certain points should be laid down as definite; some should be more in a suggestive form. For instance, I am taking as an example a building for which there is a specific sum of money allowed, say, £50,000, allowed by bequest, which may not be exceeded. There are other competitions such as for public buildings, where the Council or whoever it is, wish to spend a certain amount of money, but are not strictly tied down to it. I maintain in the first case, in the conditions of competition you should have a very strict ruling on the question of figure, that that building must be constructed within a specific figure. In the other case the conditions should be worded quite definitely, that it is anticipated, it is hoped, that the building will not cost more than a certain amount. You know exactly where you are then as a competitor, if, by spending another £10,000, you can make an enormously improved design. In the one case it is quite out of the question; in the other it is desirable to put it in. The question as to whether the additional cost is worth it, is a matter of the assessor in the second case. And in addition to that there are innumerable other cases where you get certain competitions drawn up where a schedule of accommodation is required. Sometimes one knows from the assessor that the schedule of accommodation was suggested, rather than absolute. That I think should be made clear. If these regulations are drawn up, we should have some clause leaving an assessor to make it quite distinct which clauses are binding and which clauses are merely suggestive. We should then achieve a very big point. There is the other point, on the question of perspectives. I myself feel it is perhaps a mistake to include perspectives in any drawing submitted for competition, the reasons being, firstly, any capable assessor should be able to judge a building from an elevation, without a perspective; secondly, in nine cases out of ten, the designer of that building does not prepare his own perspective. If I were assessing a competition at any time, I would very much sooner no perspectives were submitted. The difficulty that really arises is this. The reason, as a rule that perspectives are included in the requirements, is that it is known that the promoters like to see what the building is going to be like. And in one or two competitions at Home recently, a condition has been made that the winner, immediately on being informed that he is the winner, must at his own expense produce a perspective of the building. I think that would overcome that particular point.

Mr. ALLEN WILSON: Mr. President; Mr. Furner, I think, has struck the right point. I have seen competition perspectives which, to the public and to a great many professional men, indicate what the building would look like, beautiful and that kind of thing, but they do not represent the building which has been designed. The perspective has been made to catch the eye. And if you could say to the assessor, "If this man's perspective is not true to his drawings, cut him out." Then I think perspectives would be a good thing. But there are very few perspectives you come across which are really a true perspective. A man

who is making a perspective thinks it would look a little bit better, if he just alters one vanishing point a little bit, and another one there. He does it; I have seen it done. But if the perspectives are correct, it is all right. Perhaps the last speaker did not know what Mr. Powers said yesterday about the price. Mr. Powers said he thought, I think I am right in saying, that there was no necessity to put a price on a building; a certain accommodation is wanted, and it will take so many cubic feet of brick work, or stone work, or timber, as the case may be. And when the design is finished, the skilful Architect simply says, "I have to make this come out at £50,000."

Mr. RITCHIE FALLON: I would like, at this stage, to read a letter from Mr. F. K. Kendall, of Cape-town.

Dear Mr. Howden,

Re Architectural Congress.

I enclose the card you sent with your kind invitation to attend the Congress of the Institute in Johannesburg at the beginning of December, with many regrets that I shall be unable to be present.

A subject for discussion occurs to me which you may think worth while to introduce relating to architectural competitions. I have lately been going into the standard conditions here with Fallon and Hawke, and as a result of our discussions, we suggest various slight amendments to the draft provided for it.

Apart from this, however, it seems to me that the present is a good time to get the whole thing set upon a more satisfactory basis regarding the remuneration paid to Architects under the existing system.

I do not think there is any parallel in businesses or professions that I know of, wherein a profession is so victimised without proper remuneration, as in Architectural Competitions.

The amounts paid out in a well organised Competition usually amount only to about the fees which would be paid to one Architect for a set of sketches—so that the system as now constituted enables the promoters to pick the brains of all the Competitors for this grossly inadequate fee. Could you imagine a man, say, wanting a new suit of clothes, going round to say a dozen leading tailors in his Town, and asking each one to make him a pair of trousers to measure—on condition that he will order a waistcoat and jacket from whichever tailor produces the best pair of trousers!

If this is unfair and ridiculous in this instance—how much more so is it for promoters to victimise Architects in such a manner?

Whenever I have discussed this question with other (outside) professional men, they have replied by pointing out that the fault is with the Architects in allowing themselves to be so badly treated.

The only reply that the unfortunate Architect is able to make is that he has little or no redress, owing to the impossibility of getting unanimity among his fellows. Now, however, that we have the Act and are

constituted upon a sounder basis, surely it is time for the whole profession to stand firm and politely demand reasonable remuneration for their services?

While it is obvious that a very drastic change in one fell swoop would be difficult to arrange, I think it quite feasible that it might be brought about by degrees if Architects are fairly unanimous on the subject, and I should venture to suggest that if agreement could be arrived at, the first step should be brought in requiring say, premiums of £100 each to the first ten or twelve designs in order of merit, out of say, double that number of competitors.

This principle, or something like it, applied to ordinary Competitions as well as limited ones (though in the latter case, presumably all Competitors would be compensated).

Of course, one could write at much greater length on the subject, and I am not overlooking the fact that there may be some reasonable objections; but it occurred to me that it might be a very good subject of common interest to introduce at your Conference.

I only regret very much that I am unable to get away from the Cape at the time of your gathering, having some important work starting about the beginning of December, which will demand a great deal of personal supervision.

Wishing you all success,

Your sincerely,

F. K. KENDALL.

While I am on my feet, I would just like to draw attention to a remark I think Mr. Sinclair made in connection with the Greek voting. If my recollection of yesterday's meeting is correct, it was not laid down as the one and only method of assessing competitions, but was to be introduced into these proposed conditions for competitions as an alternative.

Mr. McWILLIAMS: It was only a recommendation to the Central Council, of course, but it was a definite recommendation, and not as an alternative.

Mr. RITCHIE FALLON: As an alternative method of assessing competitions.

Mr. McWILLIAMS: The final judging to be by the Greek vote.

Mr. RITCHIE FALLON: My recollection of yesterday was that this was to be an alternative added to page one: "Competitions may be conducted in one of the following ways."

Mr. D. M. SINCLAIR: The recommendation to the Central Council was, the present idea of assessing was to be deleted, and in its place was to be the Greek vote, definitely. Nothing else; no alternative.

Mr. F. WILLIAMSON: Mr. President, I regret I was not able to enjoy the full discussion yesterday afternoon; therefore I am not sure that what I would

like to say now may not possibly overlap what has already been discussed. I personally feel that the principle under which competitions to-day are controlled is fundamentally incorrect. I think, with particular reference to Mr. Kendall's letter, that a competition should be conducted on the following lines. The promoters should ask for preliminary sketch designs in the first instance from all Architects wishing to compete, and the assessor, having thoroughly analysed these preliminary schemes, not from the point of view of the proposed suitability of the scheme as a whole, but rather with the idea of judging for himself the authors of the scheme—such schemes as he thinks are capable of development. I am afraid I am putting this rather badly. What I really mean is that in my experience, some 80 per cent. of the schemes usually submitted in a competition under present conditions, haven't a hope from the start. And yet our members are compelled under present conditions to work up very finely finished drawings, which, if they had an opportunity of discussing with their fellow-men, they would realise themselves were hopeless, and that they had not a possible chance of success. I think therefore if the assessor were to call for preliminary sketch designs in the first instance, and choose from those sketch designs ten or a dozen, or more, according to the general merit of the scheme produced, and ascertain the authors of these schemes, and then ask them to compete on the lines competitions are now run, that would be fairer. I think it is altogether unfair that Architects should be expected to put such an enormous amount of work into their schemes when, on the face of it, many of them have very little hope of success. I don't know whether that point was discussed yesterday afternoon, but I think some drastic modification of our present conditions on those lines should be done.

Mr. McWILLIAMS: Mr. President, I support Mr. Williamson's view entirely. But in the first place I think that competitions should really be discouraged as much as possible. But if competitions are to be held, and especially for large schemes, I think that is the only way that unnecessary labour on the part of the

profession generally can be eliminated. I think it was the Birmingham, or the Southampton Town Hall, quite a recent competition, where they called first of all for a preliminary lay-out, if I remember rightly, and then selected the competitors from that, as far as I can remember. And the preliminary lay-out was the basis upon which those competent to be in the final competition were selected.

Mr. A. S. FURNER: With regard to this question Mr. Williamson has raised, in the case of big competitions, I have always felt that the organisation of the competition for the Quasr el Aini Hospital, in Egypt, was one of the finest. One of the criticisms you have against competitions for big work is that you are not necessarily getting the best men putting in schemes for the work. The advantage of the competition system is that you seek for the best men, who may not lie among the "upper ten" of the Architects. Now the Quasr el Aini competition was worked roughly on these lines. It was a tremendous competition; the building cost over a million, I believe. There was a preliminary scheme open to everybody in the world, I believe. From that scheme a certain number of designs were taken; speaking from memory, I think it was six. In addition to that, six of the leading Architects in the world were chosen, not by competition, but simply by repute. The six winners in the preliminary competition I think had £500 each. The final competition was between these six and the six leading Architects chosen, all of whom received the same remuneration. It always struck me as being one of the fairest and best ways, both from the public and Architect's point of view.

THE PRESIDENT-IN-CHIEF: Gentlemen, the full report of this debate will be in the hands of the Central Council. Do you wish to move any special resolutions, or will you agree to leave the matter in the hands of the Central Council to revise the conditions of competitions based on the lines of the discussion?

AGREED, to leave the matter to the Central Council.

SALARIED ARCHITECTS AND COMPETITIONS.

By W. F. WALDECK.

Mr. President-in-Chief and Gentlemen:

I wish to speak on a subject which in the past has possibly found little sympathy among practising members. In bringing this matter up I am speaking on behalf of a large section of salaried Architects.

Should salaried Architects be debarred from Competitions? That is to-day an unsolved question among all salaried members.

There are many salaried Architects to-day who have the qualifications and ability and who are just waiting for that one opportunity to get a start on their own in life; to win a Competition is possibly the only chance a salaried man has of becoming his own master.

To start a practice of one's own is not an easy matter nowadays. Even if a man has a few hundred pounds to his credit he yet cannot take the risk of setting up his own practice and waiting patiently for work to come his way. Nor can he live in obscurity until such time. Rent, equipment and social expenses will soon diminish his capital before any work has come his way.

Quite different would be the outlook if he had won a Competition which would help him over the hard start that all Architects who have begun in a small way have experienced.

A man becomes known by his work, not by mere name; success in a Competition would lead to his becoming known.

The South African Institute of Architects has been formed to protect and assist its members. Should it not look ahead and give assistance to the salaried members?

The R.I.B.A. to which this Institute is affiliated makes no distinction between salaried and practising members in this connection. Why should we?

To obtain a high standard of Architecture in this country, competition is necessary, and the more the better.

Personally I am sure few Architects would object to an assistant striving to win a Competition, providing he does so in his own spare time. But at present an assistant competes semi-secretly, or entirely so.

Such action should be regularised. Secret work ought to be discountenanced for the good of the Profession and the assistant in his upward urge should by Regulation or Professional Conduct By-law be permitted to enter openly into the advertised Competitions.

I therefore beg to propose, with a view to its adoption, that the Central Council frame a new clause in the by-laws which shall contain the conditions under which salaried Architects may be free in this connection. Should any such one succeed in winning a Competition, he is to be transferred to the class of, and become, a practising member.

In proposing this motion, I do so in view of the fact that there are salaried members wishing to start a practice on their own, and they should receive help and protection.

If a recommendation is made to the Central Council to draft such a clause, they should realise that it is not intended for the benefit or protection of anyone desirous of entering for Competitions and yet if successful preferring to remain in the position he has hitherto occupied instead of establishing himself in practice on his own.

I see here, gentlemen, in these competition conditions we were discussing just now, there is the following: No. 4 "No promoter of a competition, nor assessor engaged upon it, nor any employee of either, nor any public servant, shall compete or assist a competitor, or act as Architect or joint Architect for the proposed work." I take it that these "public servants" are these salaried men in the Civil Service to-day, in the P.W.D., for instance.

Mr. SCHREVE (Potchefstroom): I beg to second that.

THE PRESIDENT-IN-CHIEF: Gentlemen, the point is, it really wants a rather different resolution to that, that the Central Council decide to recommend to promoters of competitions that they should throw competitions open to salaried men. The point is, is that

sufficient? The only resolution that I see that would be of any avail would be that a recommendation to the Central Council be made that they do not approve of any competition in which the salaried man is debarred. I suggest you discuss it on those lines. We had a competition quite recently where the Central Council decided to write to the promoters and point out to them that the salaried man was debarred, and, in the Central Council's opinion, they should throw the competition open to salaried men as well as practising men. They did not do so. The point is, is that so serious that you want the Central Council to take up the attitude that they will ban that competition unless it be thrown up to salaried men as well as to practising men?

Mr. D. M. SINCLAIR: If you read No. 4 again, they are barred according to our conditions. It does not leave it open. I don't think you have noticed that.

THE PRESIDENT-IN-CHIEF: I think a resolution by the Central Council since that date rescinds this.

Mr. SINCLAIR: This was not deleted.

Mr. E. M. POWERS: I have great pleasure in supporting Mr. Waldeck's motion with regard to salaried Architects. I have always felt it was very unfair to any section of the profession, particularly in a country where they have registration, that salaried members should be handicapped. I do so with a certain amount of reservation. I think it ought to be made perfectly clear exactly what salaried Architects are. Well, as I have said, I am in perfect agreement with the spirit of the resolution, but we know there have been one or two abuses of the privilege, abuses which I am sure Mr. Waldeck himself would not countenance for a moment. We know that in the Service in this country all officials are salaried, whether they be temporary, permanent or high officials. And we have known of cases where, as Mr. Waldeck suggested, either secretly or semi-secretly the high officials have competed, not with any idea of improving their own position as practising Architects, but rather to get the monetary prize. The spirit of the resolution I do most heartily support, but I would like it to be a recommendation to the Central Council that it be so carefully examined that it will prevent any abuse of the privilege. I have known of a case in which the Transvaal Association of Architects, before the Union, did make some sort of exception, and the exception was, in the event of the successful competitor being a salaried Architect, he would be asked, as the proposer said, to resign his position and start in practice, which he agreed to do. But unfortunately this particular individual took six months' leave, carried out the work, and went back to his job. Those are the sort of things, of course, we do want to avoid. Personally I think the resolution in the main is undoubtedly sound, and it does give the man who is in a salaried position a chance to start on his own. I am sure most salaried men are not in their positions from choice, and that every man wants to be on his own.

Mr. W. F. WALDECK: Mr. President, I don't think Mr. Powers quite realises that I definitely stated in my paper that it is not to support these men that have in the past won competitions and sat quietly in their billets. That is a thing that should not continue.

If a man wins a competition he should get out, and must get out. That I want the Central Council to lay special stress upon in framing the regulations, because I don't think it is fair to the young men who really want to come out, that some of the older men, as has happened in the past, have calmly sat down and not gone out. There are quite a number of us young fellows who really want to come out, and cannot.

THE PRESIDENT-IN-CHIEF: Gentlemen, you have not yet answered my question. Do you submit that this should be a condition in the competition conditions which we must enforce on the promoters, or simply a recommendation to the promoters which they may, or may not, accept? That is the point you must decide.

Mr. WALDECK: Mr. President and Gentlemen: you cannot do that sort of thing in a competition. Where we want the clause is in the actual regulation in this hand book, the by-laws of the South African Institute of Architects.

Mr. RITCHIE FALLON: May I put it to Mr. Waldeck, Mr. President, that his proposition is the deletion of the words "nor any public servant" from this clause?

Mr. WALDECK: Yes.

THE PRESIDENT-IN-CHIEF: There is no necessity, Mr. Waldeck, for it to be made a special regula-

tion in our Act. The position is this. We are framing conditions of competitions now which will be put up to promoters, and if the promoters do not agree with our conditions, we are in a position to ban the competition; that is, we have the power, under our regulations, to write to every man on our register and say, "You are not to enter for this competition." Now, the point is, whether you desire that that be a clause in these conditions of competition which we must enforce on promoters, and if promoters do not accept it, then ban the competition. That is the point.

Mr. F. WILLIAMSON: I submit the matter is of sufficient importance to be included as a definite clause in the conditions of competition.

RESOLVED, that it be a recommendation to the Central Council, that these conditions of competition be such as to permit salaried members to compete, on the express condition that if a salaried member is successful in any competition, he must thereupon assume practice.

Mr. D. M. SINCLAIR: There is one point you have perhaps missed. "Provided that man has the qualification." You want to be very careful about that; you may have a salaried man who has no qualification, and then he cannot come out into practice.

THE PRESIDENT-IN-CHIEF: He cannot be on our register unless he has the qualification.

CAPE PROVINCIAL ADMINISTRATION AND FEES FOR QUANTITY SURVEYORS.

By W. J. McWILLIAMS.

Mr. W. J. McWILLIAMS: Mr. President and Gentlemen: this is a question on which I have been somewhat in the dark. I wrote before the Act was passed, several years ago, to the old South African Institute of Quantity Surveyors, and I had no very satisfactory reply, as to why the fees were fixed everywhere for quantities for Cape Provincial Council work, instead of paying the full two and a half per cent. I may tell you I am very averse to cutting fees in any way at all, and I don't see why, unless there is very good reason for it, fees to be paid by the public authorities should be less than the fees paid by a private individual. The service rendered is surely the same; it is very often much more difficult, because of matters in which they require rigid conformity. I have again recently approached the Chapter, and the secretary promised in one reply to put it before the Chapter, but up to the present I have had no satisfactory reason for the fees being fixed, as they are. It is quite possible that the Vice-President may be able to throw some light on the matter, but several practitioners in our part of the country are dissatisfied with the low scale for Quantity Surveyors' fees. I am sorry there are not more Quantity Surveyors present, because they might bring something to bear on it. I would like to ask if anybody in this Conference can explain how that came about, the origin of it, and what was the object of the fees being fixed like that.

Mr. RITCHIE FALLON: Mr. President, I might give some sort of explanation. I am very sorry the Quantity Surveyors practising solely as Quantity Surveyors are not here. Some years ago when the subject of doing school work was discussed between the Administration of the Cape and the Architects—I think the Quantity Surveyors had previously approached the Administration with a view to the Administration entrusting all the quantity surveying work for the schools to their hands. And the Quantity Surveyors who did that were the men practising purely as Quantity Surveyors. Then the Architects struck a bargain with the Administrator, that the school work would still be left to the private practitioners, as far as the architectural portion of it was concerned, but the Administrator was not prepared to pay more than five per cent. for architectural services; the alternative being that the Public Works would undertake all the school work in the Province. The Architects, I may say, more or less saved their face on the five per cent. basis. This was when we were introducing our six per cent. down there. Well, there was not quite as much super-

vision to be done, owing to the employment of a staff of travelling clerks of works by the Department, who went round and made the inspections and reported, and it was an invariable practice to have a clerk of works on the job. To put it quite frankly, I don't mind stating that in my opinion, anyhow, it was merely to save their faces with the Administrator, that they accepted this lower fee, being faced with the alternative that if we were not prepared to stick to our five per cent., as far as the Administrator was concerned, he would hand the work over to the P.W.D. As far as the Quantity Surveyors were concerned, I don't know what the basis of their arrangement was at all. But I remember shortly after this arrangement had been come to, certain school work being entrusted to my firm, and the Administration writing to us saying if we desired to prepare the quantities, they were prepared to entrust us with this work, as we were in the habit of preparing a considerable amount of our own quantities, provided we would do it for the fees that had been agreed upon between the Administrator and the Quantity Surveyors, namely—and you got a sliding scale. I quite agree with Mr. McWilliams, it is a wickedly short scale, but I am afraid that is all that I can give you in the way of the history of how it happened.

Mr. W. H. LOUW (Paarl): Mr. President, just a few words on this matter. I don't know whether this subject is so much at home with the Central Council as with our own Provincial Committee at the Cape. Yet I think it should be pointed out that the Cape Provincial Administration expected—perhaps I should not say they expected, but if the first steps would be taken by the Cape Provincial Institute of Architects in the direction of the scale of charges, as has been adopted by the Surveyors, that would be very largely a solution of the problem. Because just now the Department has to recognise the five per cent. only, and the question is, how the Central Council will view that idea adopted by the Provincial Administration, and whether an Architect would have to report in each case where he is appointed by the Provincial Administration, that those are the fees adopted. I have no doubt, speaking from my experience of discussions with the Provincial Executive, that if a satisfactory scale of charges were put forward, that the whole problem would be solved immediately; in fact, that would be a stepping-stone towards the solution of the whole problem undoubtedly, not only in the Cape Province, but for the whole Union.

Mr. SINCLAIR: May I suggest that this matter be left to the Cape Institute?

Mr. McWILLIAMS: Would it be competent for this Congress to move a recommendation to the Cape Provincial Institute for a fee that concerns one province only?

Mr. RITCHIE FALLON: We hope it is going to concern all the provinces before it is finished.

THE PRESIDENT-IN-CHIEF: I understood from Mr. Babbs when he was here that the Cape authorities had definitely decided that no Architect was to do the quantities, even though that Architect had a Quantity Surveyor as a partner; that the quantities were to be done by a fully practising qualified Quantity Surveyor, apart from the architectural profession. Mr. Babbs distinctly stated that the authorities had laid down that law.

Mr. RITCHIE FALLON: I did not take my resumé far enough: I am sorry. When I spoke of being entrusted with quantity surveying work, this was shortly after the Quantity Surveyors had struck their bargain with the Administration. Now I come to think of it, the Cape School Board—that is only one of the Boards, but the biggest School Board in the Province—will not entrust the taking out of the quantities to the same firm that does the architectural work.

THE PRESIDENT-IN-CHIEF: Even though he has a partner as a Quantity Surveyor.

Mr. RITCHIE FALLON: Even though he has a partner who is a Quantity Surveyor. But I think within the last two years I have both taken off the quantities and done the architectural work for the country School Board. The Administration, to the best of my knowledge, has not laid down that dictum, but the Cape School Board have, on their own

Mr. McWILLIAMS: I support that. Quite recently, only last month, we called for tenders for a hostel in Grahamstown, under the Albany School Board, and the quantities were from our own office.

THE PRESIDENT-IN-CHIEF: Would they only permit you the scale arranged?

Mr. McWILLIAMS: Only the scale I am complaining about.

THE PRESIDENT-IN-CHIEF: Of course, gentlemen, the larger question seems to be entirely a Quantity Surveyors' question. If the School Board in the Cape Province says, "We only entrust the quantities to Quantity Surveyors," well then, I think it is a matter entirely for them. But Mr. McWilliams has raised the question that it affects the outside districts, apart from the School Board. Well, I am afraid it has come

into the province of the Architect. As Mr. McWilliams states, he is doing the building and quantities as well. It appears to me that he is bound by a contract or a bargain made between the Quantity Surveyors' Association and the Cape Provincial Council. That is what it appears to be. So I really think Mr. McWilliams' redress is with the Chapter. Evidently the Quantity Surveyors themselves have made this bargain by which you are bound.

Mr. McWILLIAMS: I have no information that the Chapter has made this bargain. I want to know how it came about.

THE PRESIDENT-IN-CHIEF: All I can tell you is that Mr. Babbs emphatically stated that that was the case. He emphatically stated they had decided not to give their work to an Architect, even if that Architect had a partner as a Quantity Surveyor; and it was entirely a matter between the Quantity Surveyors and the Cape Provincial Council as regards those fees.

Mr. SINCLAIR: May I suggest, in answer to Mr. Louw, in these matters which we are talking about—this scale of fees—I don't think it will be necessary to come along in each instance to show a deviation of fees, as it will be made naturally under special arrangement, according to the heading of your scale of fees. Where you have a special arrangement, you can deviate, and then it will be arranged with the Provincial Council.

THE PRESIDENT-IN-CHIEF: I don't think Mr. Sinclair is right there. Special arrangement or otherwise, you must notify your Institute.

Mr. SINCLAIR: But if it is a special arrangement with the Provincial Council, and the Cape Institute agrees?

THE PRESIDENT-IN-CHIEF: It is a question, of course, of principle, as to whether the Central Council would acquiesce in a Provincial Institute acting on its own in that direction. It certainly seems inconsistent, at first sight, in that we have a scale of charges, which we are telling our members to adhere to, and not to charge less, and at the same time the Cape is carrying out a bargain with the Government to do it for less. I think it is a matter on which the Chapter should give us an explanation.

Mr. McWILLIAMS: I think it is a very important matter. It has a bad effect on the layman. He comes along and says, "You do the Government work for 1½ per cent., or 1 per cent. (whatever it may be), and you charge me 2½." And he immediately classes it as unfair. I think it is a matter, with your permission, as there don't seem to be any Quantity Surveyors present, that should be brought up again. It affects the whole Cape Province very seriously.

Mr. RITCHIE FALLON: Mr. President, if I may speak again, I wish to remind the meeting that both these arrangements were entered into a good few years ago. I think the Cape Institute is likely to find itself in the same awkward position as the Quantity Surveyors. This has been discussed by the Council of the Cape Provincial Institute, and they came to the conclusion that until they got some further light, particularly as the result of this Congress, and the meeting of the Central Council up here, it was better just to leave the thing alone. It is an old standing arrangement, and they did not want to put their foot into the fire, either on their own behalf or on behalf of the rest of the profession in South Africa, in that they are not desirous of going along and having a first-class row with the Administration, and trying to change this, before consulting the other provinces, through the Central Council. We realised it is a very delicate matter, and we must approach the thing as a whole.

Mr. H. W. SPICER: Otherwise you lose the lot!

Mr. RITCHIE FALLON: Exactly. I take it, if we went out and lost our share, I don't think the other provinces would bless us at all, because it prejudices them. Both these matters are of old standing, and it will not pay to interfere with them until we can speak as one body.

Mr. H. W. SPICER: Is this a subtle discussion between our Cape Congressmen with regard to Government work? It makes our mouths water!

Mr. W. H. LOUW: I feel very strongly about it, that we should not prejudice our unanimous decision of

yesterday, of acquiring more Government work which is now in the hands of the P.W.D., all over the Union. If we are going to decide in the direction that was suggested here, of increasing fees and so on with the Administration—I don't say it has been suggested, but I think that is the tendency—before some financial arrangement could be arrived at with the Departments concerned, we are undoubtedly going to play into the hands of the P.W.D.

Col. HURST: If you will allow me at this point, Mr. President, I would like to say how very much I appreciate having been present at this Congress. I unfortunately have to leave this evening for home, but I cannot really leave without saying how much I appreciate the kindness I have received from everybody I have met here, many of whom I have met before. It is only just restating a fact when I say they are a jolly good lot of fellows. The number of free drinks and free smokes I have had—well, I'm sorry I haven't come up more often! But I do, Sir, wish to let all the members present know that I appreciate very deeply everything we have seen and heard, and in particular the very great kindness which you people in Johannesburg, Professor Pearse and so forth, have extended to myself as an individual and to other visitors from other parts. Thank you, Sir.

THE PRESIDENT-IN-CHIEF: Thank you, Col. Hurst. I am sure all the members present regret very much that you cannot continue. The information that you have given us in connection with several discussions has been most useful, and it is very regrettable that you have to go so early.

Fourth Day.

THURSDAY, 6th DECEMBER, 1928.

GENERAL ADOPTION OF STANDARD SYSTEM BY MEMBERS OF THE INSTITUTE AND THE CHAPTER.

By F. D. HICKMAN.

Mr. HICKMAN: Mr. President and Gentlemen: Item No. 4 on the Agenda is one I think which does not require a written paper. There are very few points in connection with it, and I feel, as all I shall do will be to ask you to confirm this previous resolution, that I shall have everybody with me. The resolution I would like to call your attention to was made by the Central Council at their first meeting. It is in their minutes, and reads as follows: "Standard System of Measurement: My Council, while realising the limitation imposed upon it by law, will steadily encourage the use of the standard system of measurement as the basis of all quantities." You are doubtless aware, gentlemen, that when this Act was in the course of being inaugurated, it was the desire of the Surveyors to have the standard system of quantities of measurement, embodied in it. But we were told by our legal people that Parliament would not consider that. So we felt that the next best thing we could do would be to get the Members of the Institute and of the Chapter to agree to it as a principle, even though we cannot legally enforce it. You have all had a copy, gentlemen, in the past. I hope you have all read it and studied it. It was the result of the best part of a year's strenuous work on the part of the Surveyors; some half dozen of us had to spend most of our week-ends in drawing up that document, and I venture to say that I think it is on the way to attain a very great success. It was not supposed to be "the last thing"; it was only an honest attempt to give a lead to this country as to the principles of measuring. We found at a later date there were certain things which were not quite as they should be, and also construction in this country varied, which necessitated revisions; and last year we published a smaller edition, as a sort of addendum to the original document. One of the things we found in the course of practice this last year or two, was the reinforced cage construction. That, ten years ago, was practically unknown. To-day I suppose 90 per cent. of the buildings in town are built on that principle. And in discussion with the contractors, they were very keen on the system being adopted of measuring the floor beams and stanchions supporting that floor together with the reinforcement and the centering, under one item, and then keeping those same items separate, floor by floor. The reason, of course, is very obvious. A man in pricing, when he first prices his centering, knows—at least, I think most of them do—that they are going to start off with new stuff. He prices his timber for his four or five floors, and he prices his centering for his first floor at the actual cost of the stuff and labour. But if he knows, gentlemen, that he is going to use that three or four times over, as he goes on with his bill, so he can regu-

late his prices and reduce them also. Another point which was raised was in the measurement of granite; contractors ask that beds and joints should be kept separate. The principle was according to the standard system, that in measuring granite it was so many cubic feet including beds and joints. Now, as we all know, the beds and joints on to granite is a most expensive item, and is a very difficult one for a contractor to jump at. Well, gentlemen, we did that. We have just had an occasion where it has been brought, I think, into practical use, that is, in the case of the new Railway Station here. The new station is faced with granite up to the first-floor sill level. Some 45,000 cubic feet of granite. When I tell you there were over 60,000 superficial feet of beds and joints, you can realise it was quite a lot of work. It really meant checking this job stone by stone, as it were, in order to calculate those measurements. But I feel it was work which will be repaid. Now, in asking you to adopt this resolution, gentlemen, I would just touch on the point of litigation. We feel, in fact we know from practice, in this part of the country, that the most fruitful source of litigation is caused by bad bills of quantities. We have had many cases of that in the last few years, and I think as a Congress you will all agree that if we can keep out of the courts, it is to everybody's advantage to do so. Especially the unfortunate client. I don't think I have any other points to make, except to ask this Congress to reaffirm the resolution passed at the first meeting of the Central Council.

Mr. RITCHIE FALLON: Mr. President and Gentlemen: I have much pleasure in seconding Mr. Hickman's resolution. In doing so I would like to draw attention to one or two little points. The resolution that was passed by the Central Council took due cognisance of the provisions made in the Act, and I rather like to stress the point that the standard system of measurement of quantities was to be the basis of all quantities. I think I took a fair share in the wording of that resolution before the Central Council, and in doing so, I had in mind practising Quantity Surveyors, Quantity Surveyors practising solely as Quantity Surveyors all over the Union, who have their own particular little variations to the hard and fast standard. I don't see any harm in it. In personal practice I get my own quantities off now and again, and I modify my quantities to bring them up to the standard system basis as much as possible. I do not necessarily tie myself right down to that, but I go on my experience from seeing priced bills that come into the office from time to time. I was very tickled the other day with a perfectly good bill that came into the office, for a fairly big

building. Brick work carefully taken off at the varying heights above ground; one price for the brick work straight away through. But the contractor in pencil had inserted a note at the beginning of the brick-work bill, "Scaffolding so-much." I went into this calculation for scaffolding and found it was quite a good scheme. (Interruption. A member asks Registrar for certain information: Speaker's sentence missed!) "I won't vary my prices on the various floors at all." But there was one point there again, that he had all his brick work set out floor by floor, which gave him an extra description of what he wanted in the way of scaffolding. Therefore I have much pleasure in seconding Mr. Hickman's motion, and I hope that the profession throughout the Union will set itself to study the improved standard system—we are bound to advance—but particularly to set itself to eliminate the so-called bills of quantities that one so often comes across. I have had brother professionals, with whom I have discussed a bill of mine, of 20 to 30 pages, say, "My God! I could get that into four." They cannot. That is quite a fallacy. Their four-page bill of quantities, instead of twenty, is not worth a damn to anybody!

THE PRESIDENT-IN-CHIEF: I think, gentlemen, Mr. Hickman has struck the nail on the head. He has mentioned two or three important items—and there are many more—justifying the standard system. I could never understand any Quantity Surveyor objecting to a standard system. My answer to them all was this. "If you disagree, go to the Quantity Surveyors' Association and give them your opinion. And I know jolly well, if you get on to the Council and commence working with them, you will fall into line with what they are doing." It is no use abusing those people who are trying to simplify matters for the benefit of all concerned. Now, I consider the builders in the first place are absolutely justified in demanding a standard system of quantities. If a man understands his business properly in the way of taking out quantities, it is just as easy for him to take them on the standard system, recognised as a standard system, as it is any other way. Why should builders have one day a set of quantities saying "Granite including beds and joints," and another day showing beds and joints separately? Why should they have the concrete and the centering taken out in such a way that the man cannot tell how much of that staging and so forth he can use from floor to floor? It is imperative that, in the builders' interests themselves, and particularly when it is no further trouble to the Quantity Surveyor himself in taking it out, that a standard system be established. Let everybody give their assistance to this standard system, and once that standard system is established, enforce it. And see that every Quantity Surveyor does take out his quantities on those lines.

Mr. ALLEN WILSON: Mr. President, I have heard people make the remark that the standard system is all very well, but you never get a cheap job. I don't think we are looking for cheap jobs altogether; or, if we do want a cheap job, we want it done well. And I cannot for the life of me see why the haphazard way that I have seen quantities taken out should make a job cheaper. But I have been told by builders that if they priced out every item in a bill, they would never get the job. I think it was Mr. Fallon who

touched upon the subject of a man tendering: his quantities would be taken out on the priced bills that have been sent to him from other jobs. Say you put in an item for beds and joints. In my office I have always adopted that system for years; in fact I never knew any other system of taking them out. But some people take out the beds alone, and I believe the standard system does say the beds and doesn't say the joints.

Mr. HICKMAN: Beds and joints in granite.

Mr. ALLEN WILSON: I think it has not been the custom to take out joints, but beds they have taken out. I think it is important to take out the two. In one instance they had not priced out the beds and joints at all. It is a most extraordinary way. A man thinks he can get at a true price; he can't do it. I am a great supporter of a standard system being adopted, because I feel certain that as things go on we shall get them brought up to date and improved. I believe some gentleman in the early days of quantity surveying in South Africa took a lot of trouble to get this so-called standard system—it is not a standard system; I should like it to be a standard system myself: it is called a standard system; there is no reason why we shouldn't call it that. These gentlemen did the very best they could, and I consider it is a very fine book as a basis for taking out quantities. I did not know, as Mr. Hickman now tells us, there is an addendum to it; I have been rather ignorant in not finding out about this. I have very much pleasure in supporting what Mr. Hickman has said, in every way. As one of the speakers said, to try and condense a bill of quantities that should take 50 or 60 pages into three or four, brings the matter to an absurdity, and is simply done, I feel confident, in order that a builder should not say, "Here is a whacking big bill of quantities. It is going to be a whacking big job," and take out his prices accordingly. In my experience I don't think a good builder would ever have that in his mind; he starts on his bills and prices out what he thinks a proper price. I have heard Architects say, "If I get out a full bill, my price would come out at 10 or 15 per cent. more than what it is," which it should not do.

Mr. HAROLD PORTER: Mr. President, speaking as an Architect and not as a Quantity Surveyor, I welcome the institution of the standard system, and I would like to compliment Mr. Hickman on the manner in which he has put the thing forward, especially in that he has converted Mr. Allen Wilson. I think Mr. Allen Wilson has been one of the chief opponents of the standard system all through, and I was very glad indeed to hear this morning that he would support the standard system.

Mr. ALLEN WILSON: May I speak again? I am sorry—I don't want to labour this question—but I don't think Mr. Porter is quite right. The only thing I have done is, I said the standard system is not complete enough. No, Sir, I have never gone against the standard system; never. I have always upheld it right from the very beginning. But I have said it is not a standard system; it is a system, but I won't say it is the standard system. There is no such thing in South Africa as a standard system, but I hope, Sir, it will be made a standard system. I have always supported the standard system, and I have adopted it right through-

out. I don't think anybody can say my quantities have not perhaps gone a little bit beyond that. Mr. Porter is quite wrong in saying Mr. Hickman has converted me to this, because I have been converted to this all the time. I have never gone against them. I do think this should be made a standard system, but what has been done, and I have heard it done times out of number, is it has been called the standard system. And Mr. Hickman and the Quantity Surveyors who are acting as Quantity Surveyors only I think will quite agree with me, that that system requires a great deal of revision. It can be improved upon, but it is a fine basis to go on.

Mr. F. D. HICKMAN: Mr. President and Gentlemen: just one or two points in reply. I am not sure whether I misunderstood Mr. Wilson, but I thought he started his remarks by saying that Architects had said that, by using the standard system, it increased the cost of the job.

Mr. ALLEN WILSON: I have heard them say that.

Mr. HICKMAN: Well, I also have, Mr. Wilson, but after all, as a sensible body of men, can we possibly subscribe to that argument?

Mr. ALLEN WILSON: No.

Mr. HICKMAN: Does it not mean that the builder does not know his business? My experience of them in this country has been that they do know it. Mr. Wilson

also just mentioned that the standard system required a great deal of revision, but at the same time he also mentioned that he had not seen the addendum to it. I understood that that was sent to every Architect throughout the Union. I was under that impression; I may be wrong. We had a large number of copies printed, and as in the case of the original standard system, the builders made us a grant to help us send a copy of that document to every Architect throughout the country; and they made us a small grant this time also towards the cost of distributing it. And I thought that was done. Possibly you have overlooked it. I will make inquiries about that. But that certainly was the idea, that everybody having the original naturally would need to revise it. And these are very important items to-day; everybody should have a copy. I thank you very much indeed, gentlemen, for the way you have received my remarks.

THE PRESIDENT-IN-CHIEF: Would you mind reading the resolution again?

Mr. HICKMAN (Reading from Central Council minutes, from a letter written to the Secretary of the M.B.A., incorporating the decision of the Central Council): "Standard System of Measurement. My Council, while realising the limitations imposed upon it by law, will steadily encourage the use of the standard system of measurement as the basis of all quantities." This resolution was passed by the Central Council in August. I am asking you this morning to reaffirm it.

AGREED, unanimously.

TOWN PLANNING.

By HAROLD PORTER.

Mr. PORTER: Mr. President and Gentlemen: in reading you this paper, on "Town Planning," I make no apology for a certain portion of it having been given last week. What do we mean by the phrase, "Town Planning Principles?"

The general conception of the phrase is—some grandiose scheme of development prepared by an "Idealist," a "Dreamer," a "Faddist," called a Town Planner, in which extravagant proposals of construction, re-construction or alterations are shown, and where the greater number of streets are curved. To the average person, a sense of High Ideals and visions of the "City Beautiful," pass before the mental vision. "Town Planning Principles," consists in the application of common sense, based upon knowledge and illumined by a certain amount of imagination to the affair of every-day life, to such questions as:—

The getting to and from work and home;

The disadvantages and unsuitability of our streets as playgrounds for children;

The mixing up of factories and dwelling houses;

The crowding of houses together and the facing of them direct on to narrow roads on which trams and noisy traffic thunder day and night;

The disgust at finding important public buildings wrongly placed on sites where they cannot be seen to the best advantage, and the enthusiasm for fine buildings nobly placed;

The convenience of railway stations properly related to the town which they are intended to serve;

The safety of life and limb to all, when using our streets;

The economic administration of our cities, towns and villages;

In fact the list of everyday Town Planning problems is without limit.

Now, to harmonise all the requirements of these several aspects and to weld them into a possible economic scheme, requires some considerable skill of a varied technical character; but the main ideas, the rough

outlines, the desirable solutions, are within the grasp of all; and seeing that the citizen himself is the ultimate judge of the scheme, and is the one who has to "foot the bill"—as no plan of any projected city improvement will ever be put into execution, that has not the intelligent backing of the citizens at large—it behoves the citizen to be not only an amateur town planner himself, but to be able to appraise and thoroughly understand the schemes prepared by his appointed experts.

Who is not familiar with the chairman of a committee, whether it be of a local authority or a private company, who stares owlishly at plans which come before him for his approval; and who is utterly unable to grasp their meaning? And one has heard of the unanimous selection of a scheme in favour of the author of a clever perspective sketch, in which the most conspicuous feature was, an exquisitely drawn lady stepping from a sumptuous motor car. The other designs, which contained the successful solution of the problem were dismissed without comment. The practice of reading plans as easily as print, and the study of existing conditions by the general public, so that local problems can be fairly and squarely faced, are essential. Therefore, though it may sound bold to suggest it, the study of City Improvement and Civic Design should begin at school. Lessons in the general principles of town planning have been given at Overseas Schools, with great success; why not let us give it a trial? No intelligent imaginative scholar, making maps of his or her own neighbourhood, will be able to resist trying to improve it, or to prophesy its future.

No artist is so entirely dependent upon public support as is the Civic Designer. If a man wishes to write a poem, or paint a picture and has the requisite skill to do either of these things, there is obviously little to prevent him from exercising his gift; but if anyone has the ambition to remodel a town, or even to make a very slight change in its appearance, he is helpless unless he can persuade a large body of people that the alteration he proposes, is for the general good.

The question arises then—How can Civic Designers achieve their purpose? The answer is, of course, that having first acquired definite opinions upon the nature of Civic Design, they must proceed to popularise the art, that is to say, by some means or other they must persuade that much abused person, "The Average Man," that Civic Design is of vital importance to him. What is more, this Civic achievement is one of the few reforms, that over a year may look expensive, over five years proves to be profitable, and over ten years will be an investment, which in subsequent days will make the community regret that it did not adopt it sooner. I want, if I may, to justify this to the "Pessimist," the ratepayer, the taxpayer and the Citizen. Civics and Town Planning after all are only giving the town that proper development, science and forethought that nearly every other Industry, Business or Project has been able to get and demands owing to progress and development.

What, therefore, is necessary in the community at large?

Firstly—Knowledge—local knowledge of their City, its history and growth, its disadvantages and faults, and chiefly its needs; these are realisable only through the medium of a Civic Survey, to which I shall refer later.

Secondly—Imagination, quickened in order to appreciate the City's possibilities, to grasp what Town Planning or rather Civic Design means.

Thirdly—Civic Pride; the natural outcome of all this would lay the foundation of a true Civic Pride, which we are all so anxious to foster.

When we have created sufficient interest in the subject of Town Improvement, the Public will realise that certain important developments must be carried out at once, and they will demand from our City Councils a Town Planning scheme.

The most important stimulus which Town Planning has received in the last 25 years is due to the efforts of housing reformers, who in the first instance, were only remotely concerned with Civic Design, but who were earnestly desirous of improving the health of men and women. The people who were anxious to promote this object were very much more numerous than were the Architects. In this instance, however, Public Health was to be fostered by means of building, so architecture itself had reflected upon it a certain borrowed light. Although this light was not directed towards the art of building considered in its formal and aesthetic sense, yet Civic Design, by the emphasis laid upon an important part of its subject, was given a most valuable stimulus.

We have at the present time another very valuable opportunity, of which full advantage should be taken. I refer to the world-wide development of motor transport, with its resultant demands for better traffic control. Let us pause and think how this huge wave of motor traffic is flooding, not only the large towns and cities, but every remote village and dorp. Even the sacred sanctuary of the Cape (Table Mountain), has for the first time had its table cloth soiled by the spray from the wave beating against it.

Let us hope that this problem of providing the means of dealing with this difficult subject will prove a great boon and blessing in disguise.

Immediately any suggested improvements are put forward, we have the bugbear of "Vested Interests" to contend with. A further objection that is a real difficulty to any schemes of improvement, is that they afford information which leads to unhealthy land speculation, and gives a fictitious and inflated value to properties that would have to be expropriated for the proposed improvements. The objection is certainly a very serious one, and cannot be disregarded, but steps could doubtless be taken to meet it in the form of legislation.

Experience has taught us that very few suggested improvements have been executed, that have been proposed piece-meal. What is urgently required is a comprehensive and complete scheme, which could be understood and its true value appreciated by all. Then with

the strong support of Public Opinion, any portion of the scheme could be undertaken as opportunity offered, or special need demanded.

The next problem to be faced is—How is this complete scheme to be prepared? And how are we to set about what would seem to be a momentous undertaking?

The answer to these questions is contained in the recognized medium of a Civic Survey. To those who are not familiar with the phrase "Civic Survey," a short explanation would not be out of place. In other words it is a graphic statement of all the existing conditions contained in a town or city, illustrated by a series of maps.

A Civic Survey is usually divided into two parts. *First*—The existing conditions, and *Second*—Future development.

We are fortunate in having the experience and reports of many recent Civic and Regional Surveys—where far more difficult problems have had to be tackled, than we have here. The most notable examples are, Sheffield, Manchester, Doncaster, Dublin; and there are several others.

The Transvaal Town Planning Association has interested itself in this important subject; lectures have been given by several of its members, in an attempt to educate the public and make known the importance and desirability of a Civic Survey. On several occasions they have urged the Johannesburg City Council to have a Civic Survey prepared, and we hope they will wake up and realise the urgent need very soon.

For the information of this Congress I should like to describe the activities of the Town Planning Association (Transvaal).

Gentlemen, you will remember when His Worship the Mayor opened the Congress, he referred to the valuable help that the Town Planning Association had given them from time to time. And in that recognition it is felt that the Town Planning Association is doing a very good work. It is continually watching the interests of the town and country. All new townships that come before the Provincial authorities go before the Townships Board, a Board constituted by the Government, which consists of the Surveyor-General as the Chairman, the Registrar of Deeds, the Rand Townships Registrar, the Provincial Secretary, the Under Secretary for Lands, and a senior assistant in the technical office of the Surveyor General's Department; and it depends upon which area they are concerned with—they have the option of co-opting a further members of the local authority to help. Now, this body, you realise, does not contain a single town planner or technical adviser, in the form of an Architect or a practising Land Surveyor. We have the Surveyor General, who can deal with questions of survey, but the actual lay-out is not considered by any man who is, we think, competent to judge. Therefore the Town Planning Association has interested itself and has tried to get this state of affairs altered. They have appealed to the Administrator, and he is very

sympathetic. Certain proposals have been put forward to him, and he has asked the Town Planning Association to submit proposals; and the proposals have been put forward—I would like Professor Pearse to correct me if I am wrong—that this body shall contain representatives of the Town Planning Association, and the Surveyors, an Engineer, and a representative from the local authority. Is there any other?

PROFESSOR PEARSE: A Civil Engineer, with a special knowledge of town planning.

Mr. PORTER: If that Townships Board were thus constituted, we would then see that there would be some technical knowledge brought to bear on these new townships. But we must not lose sight of the fact that this Township Board realises its weakness, and every township that is put forward is now sent to the Town Planning Association for criticism, which I think is a very valuable thing to have arrived at. The advice given by the Town Planning Association is always given gratis, and a lot of time has been put in by various members of the Association in criticising these plans. There have been cases where suggested alterations have been prepared by members of the Association, showing how an improvement could be made, but we feel that it is not our obligation to prepare a scheme for them. But if the Townships Board were reconstructed to contain technical advisers they would not require these things. And they could then stiffen up the regulations dealing with the submission of plans to them.

A further activity that the Town Planning Association has interested itself in is the formation or the submission of regulations governing townships. We have in the Public Health Act of 1919, section 132 (h):

"The Minister may make regulations, and may confer powers and impose duties in connection with the carrying out and enforcement thereof on local authorities, magistrates, owners and others, as to—

The sub-division and general lay-out of land intended to be used as building sites, the width and number of streets and thoroughfares, the limitation of the number of dwellings or other buildings to be erected on such land, the proportion of any building site which may be built upon and the establishment of zones within which different limitations shall apply, and of zones within which may be prohibited the establishment or conduct of occupations or trades likely to cause nuisance or annoyance to persons residing in the neighbourhood."

Now, that provision in the Public Health Act, on the face of it, seems all that we require, but in general practice there is a tremendous amount which is lacking in that provision. In that authority it there provides, "The Minister may make regulations." Well, he was hopeless—I won't say "hopeless": he was helpless in suggesting what regulations were really required, and appealed to the Town Planning Association and the Johannesburg Council. Draft regulations have been submitted to him, and I think if those draft regulations could be put into law, we would have something very valuable. But these regulations were sent forward in

the early part of 1925, and since then nothing has happened. We are now seeking further powers from the Government to help us in pushing forward to stiffen up the laws in relation to town planning. What I would like to suggest is that, especially at other centres, similar associations should be formed, in the several provinces. For instance, our Town Planning Association is known as the Town Planning Association of the Transvaal. Why not have an Association at the Cape, another one in Natal, another one in the Free State? With the co-operation of a combined body of men who have town planning at heart, I feel we could then go to the Government with a united front and practically demand better provision for town planning. I would therefore urge on the members from the other centres, when they get back, to discuss the matter with their Institutes and find out if it is not possible to form these local Associations. The Town Planning Association in the Transvaal will be able to give them any information in connection with the formation of other Associations, and will be only too willing to help. Our Association contains two members nominated by the Architects' Association, two members nominated by the Surveyors' Institute, a member nominated by the Medical Council, a member nominated by the Civil Engineers, and the rest of the Council, bringing it up to 15, are elected by the general meeting.

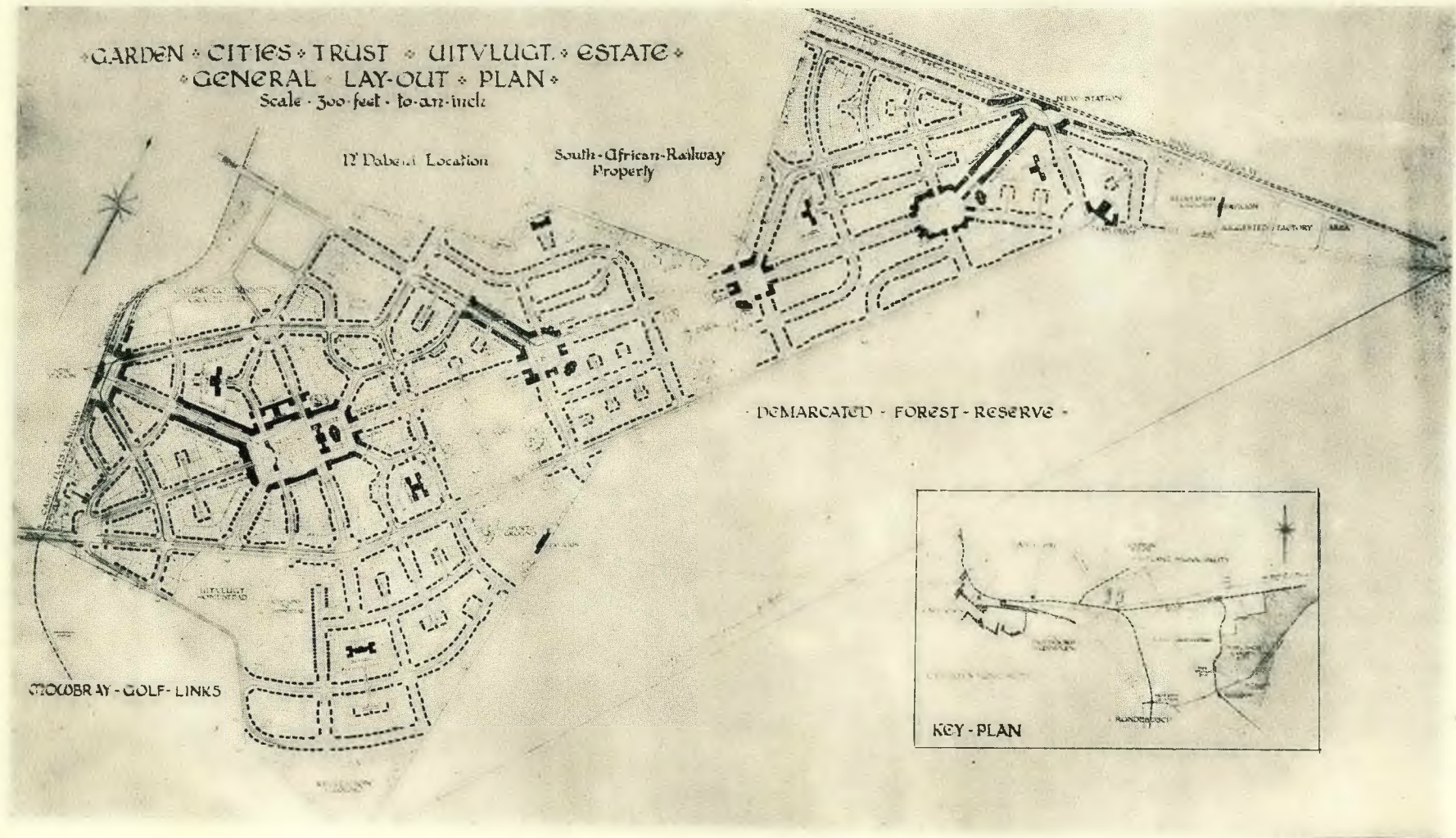
PROFESSOR PEARSE: You have the Municipal Council.

Mr. PORTER: Yes. Thus you have a body of men who can deal with technical subjects. In addition—we have not got a nominated man representing the legal profession—we have several legal men on the Town Planning Association. We also have a representative who is put forward by the Federation of Ratepayers. So you will see that this body is a very valuable body of men who are anxious to deal with any problem dealing with civic development or town planning, not only dealing with the legal aspect of the thing, all over the country. Mr. President, we have a very valuable collection of drawings in the next room, which contains some recent schemes, not only in South Africa but in other parts of the world. I would particularly commend to you the scheme prepared by Mr. Rees Poole, of Mombasa. He was appointed in conjunction with Mr. Jameson, of Kimberley, to lay out the new Mombasa, and I would like the members particularly to study that scheme, for it shows, I think, a very marked improvement on what the old town was. And if his ideas are adopted Mombasa will in the future have a very valuable town planning scheme. There are several other schemes: there is Pinelands, Capetown, which has also been put into operation.

THE PRESIDENT-IN-CHIEF: Might I suggest that we retire to the next room, and Mr. Porter and Mr. Rees Poole can there continue describing these drawings?

Mr. PORTER: Yes, I think it would be rather a good idea.

PROFESSOR PEARSE: Mr. President and Gentlemen, I beg to move a hearty vote of thanks to Mr. Harold Porter for the extraordinarily interesting paper he has given us this morning. I think you all know that Mr. Porter has done a tremendous amount of hard work in connection with town planning in the Transvaal, being one of the first members, I think, of the Association here, and it is mainly through his efforts that the Town Planning Association in the Transvaal has been kept together. He mentioned the question of the proposals that we put forward to the Administrator here. There again we are lucky in having in Mr. Hofmeyr, the Administrator of the Transvaal, a man who is keenly interested in architecture, because it was through his influence that the school was established here. He is also keenly interested in town planning. A year ago I wrote to him on the subject. He had said he had read all the Acts, and added, "Why don't you people go right ahead? Let us have some concrete proposals, and I will get the Executive to consider them." We discussed the matter for about nine months. He wrote again saying, "If you will deal with the matter at once I will put your proposals before the Executive next session." Several proposals have therefore been submitted to him. There is one point Mr. Porter did not emphasise, and that is, in our proposals we decided to go rather further than merely dealing with town development itself. We proposed, first of all, that the Townships Board should be reconstituted, as was explained by Mr. Porter. Secondly, we should get a scheme of correlating all the towns and roads in the province; that is to say, in every district, magisterial district, in the Transvaal there is what is called a Roads Board, with a magistrate as chairman. What happens at present is that the most influential farmers or friends of the magistrate in that district, get a road across their district. The result is we have got several main roads being constructed, some from east to west, some from north to south, and not being linked up as they should be. And I feel that if we could get our main arterial roads all correlated first, and if we also ask the Administrator to urge that every town which has a population of over one thousand people should within the next five years submit a scheme for future development, then a great deal will be achieved. Then we have also—I don't think Mr. Porter mentioned this—asked them to put the Government Architect and the Civil Engineering Department (Roads Department) on this Board as well. We feel one of the big mistakes made here, from our experience in Johannesburg, is that, when a township is laid out, as you know, an endowment has to be made by the Township Company, and they usually offer a portion of ground which is rather worthless. The P.W.D. come along later and have to put up their schools on that ground. We want to stop that. We want the Government Architect to say, "We must have a good building site for our schools and hospitals. We ought to choose the endowments." I would therefore like to support Mr. Porter in urging the Central Council to make recommendations, or rather to approach the Minister of Public Health. He has already approached our Association here, through the Secretary of Public Health. We have drawn up regulations, which were printed and circulated, and as Mr. Porter said, they have been pigeon-holed. The present Secretary of Public Health, Dr. Mitchell, and his assistant, Dr. Cluver, who was on the staff of this University, are men who would give us an enormous



amount of assistance in pushing this matter. If we can get those regulations circularised to the various Provincial Institutes and get their backing, and they might be able to give us some valuable suggestions, by way of varying the regulations slightly to suit the different provinces, we could then go forward as a united body and get that portion of the Act which Mr. Porter has referred to, put into effect. It wants very little pressure to bring this about; I am convinced of that, because it is a matter that affects the public health of the whole Union. And Mr. Porter was going to mention, I believe, a paper read recently by Mr. Waugh. There is an extract there concerning what has happened in Johannesburg. I would just like to read it to you, because it rather brings the matter home. Mr. Waugh said in his paper, "There is no doubt whatever that only obligatory plenary Town Planning powers will result in achieving the effects we all so much desire, viz.:—the lay-out of our towns in a comprehensive, orderly, convenient and sanitary manner with a due regard to beauty and amenity, making full use of natural scenic features, keeping business and manufacturing districts in zones where they will be most useful without depreciation of housing districts. South Africa has been very slow to realise the necessity for this regional planning or planning by regions rather than by townships or districts; in other words, planning as a whole, comprehensively and with large foresight instead of piecemeal and without regard to the requirements of adjacent districts. The want of this provision has cost Johannesburg alone with interest well *over one and a half millions* in dealing with the old so-called insanitary area, and, subsequently, by painful and costly process, acquiring other land to improve streets in other districts."

That, from our City Engineer, rather sums up the position which must exist in practically every town in the Union. And I feel therefore, that that point should be stressed, and this paper made use of, to bring it home to the Minister of Public Health what we really feel should be done at once; not in our own interests, because I don't think any of us in these matters are intimately concerned, but in the interests of the public health of the Union. And I am sure we will have behind us the backing of every Medical Officer of Health in the country. The other point Mr. Porter mentioned was the question of introducing the principles of town planning into the schools. Now, that sounds rather an ideal, but, gentlemen, I would like to let you know that from the end of this year architecture is introduced into the school curriculum as a subject for the matric. The question of Art generally has been pressed in the last two or three years, in the face of a great deal of opposition from the old type of educationalist, who looks at the "three R's" only. But they have realised now that an appreciation of art—that is what the subject is called—is an essential. We are emphasising to the High Schools that those students who show ability in drawing, and might make worthy Architects, should be advised to take that subject, "The Appreciation of Art," as a matriculation subject. They will then come here with a good deal of the ground-work done, which will help enormously. So that I do not see why we should not, as a Central Council of Architects, approach the different educational authorities, who all agree to this syllabus, and

ask them when they are dealing with architecture to include the main principles of town planning. These students are going to be taught the main principles of the historical architectural styles: why should not the question of town planning be brought into that, to show how the problem has cropped up through the ages, and how it has been dealt with? And in the Technical Institutes, you may know, I think two years are devoted to the subject of "Civics," the idea being to make these technical students useful citizens of the country. They are taught—I am not quite sure of the syllabus, but they are given at any rate the ideals for which all great political parties should work; and added to that, such things as civic pride, and a knowledge of what hygiene and amenities mean, would I think be of great value. There is no reason why we should not approach the Union Government authorities to establish such courses right throughout the Union or at any rate urge them to consider the matter. It will mean then that every schoolboy and every artisan will know something about those principles and will, as Mr. Porter said in his paper, begin to take an interest in his own district, and will realise the unsatisfactory state of affairs. Those are the sort of men who get on to most of our Town Councils; those are the sort of men then who will receive us more sympathetically, and put our ideals, if you can call them ideals—I don't: I call them practical solutions—into effect. I feel therefore that these are the two things that ought to be brought before the Central Council as the result of this discussion this morning. Again, I most heartily congratulate Mr. Porter on his excellent paper.

Mr. W. J. McWILLIAMS: Mr. President: I am extremely sorry I was not here at the commencement of Mr. Porter's paper, but the little I did hear of it was certainly very interesting. The descriptions of the town plans exhibited in the next room were also very enlightening, and it is quite evident from the work exhibited there that Mr. Harold Porter is a master of the art. I particularly wish to refer to the remarks of Professor Pearse. It is very interesting to hear that in the matric. there is going to be, in addition to the "Three R's," the Beaux Arts. I do hope this Institute may see its way to put up a prize for the best paper in architecture by a matric. student, say in this University as a start, or in the two principal Universities, where there is a School of Architecture. It seems to me, it would be an incentive to study. The more I have heard at this Conference, the more I am convinced that Johannesburg possesses a second Mussolini, and that is in the person of Professor Pearse. He is a Mussolini of Art. I do think Johannesburg is extremely fortunate in that respect, and that the Witwatersrand University is even more so. And anybody who will remember the last Conference, when Professor (then Mr.) Pearse took us down to the little Tin Temple to show us the work of I think half a dozen students, can only realise what has been achieved in six years, and will agree with me that Professor Pearse is to be highly praised indeed. I am extremely sorry that there are not a few more like him in other centres of the Union. He has made my visit here extremely interesting; he has been the heart and soul of this Conference in every way. And I make no apology for standing here and congratulating him, on behalf of this Conference, for his very great efforts on our

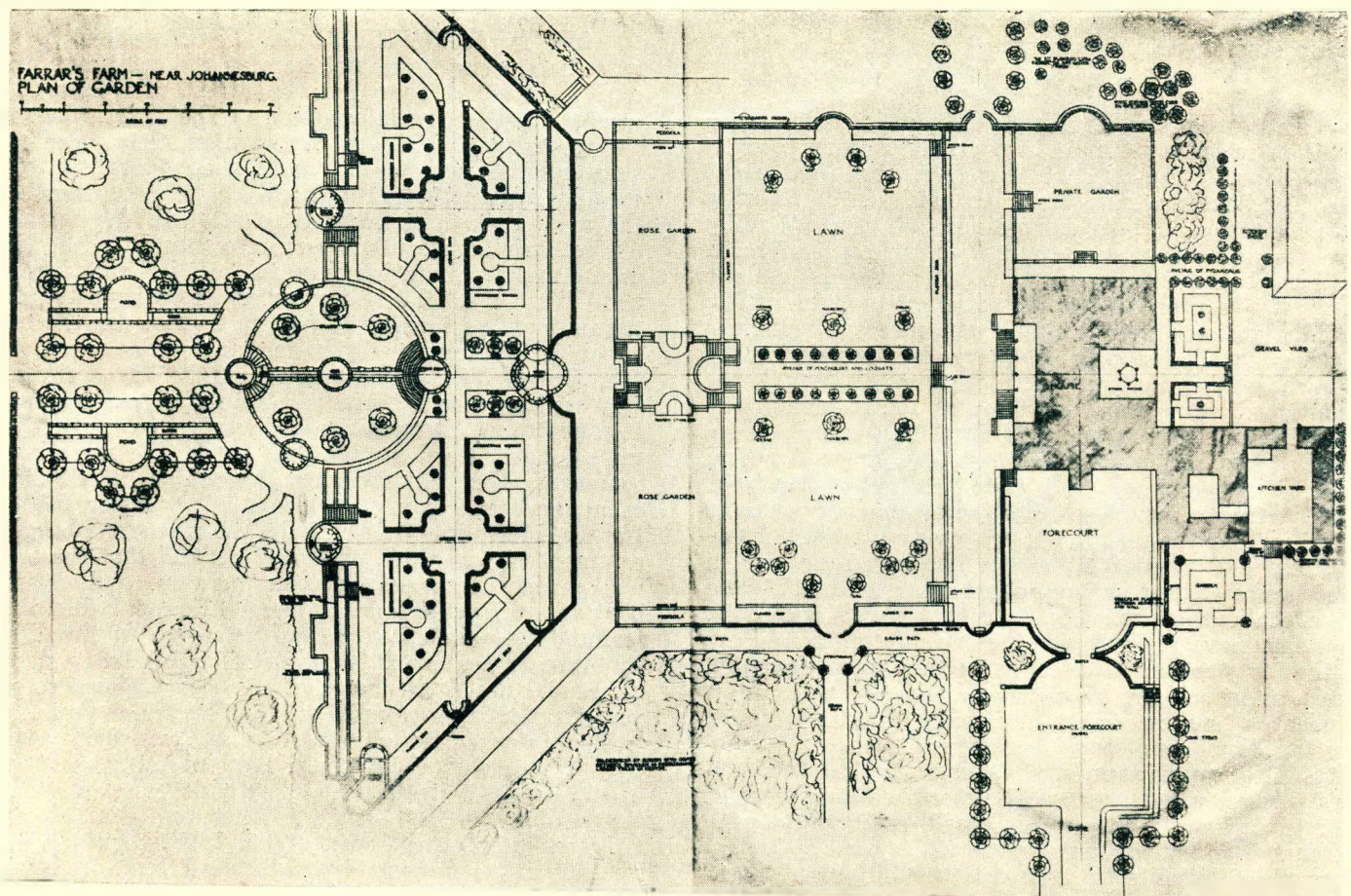
behalf. I am perhaps out of order in this, Mr. President; I may be cutting the ground from under the feet of some other member of the Conference; but I make no apology because I speak from the bottom of my heart.

THE PRESIDENT-IN-CHIEF: Gentlemen, I am sure we are all very pleased indeed and wish to express our thanks both to Mr. Porter and to Professor Pearse in connection with this particular question. They have both spent a great deal of time in connection with town planning, with, I am sorry to say, very little assistance, and absolutely no financial assistance whatever. It is a gratuitous body, composed of gentlemen who meet and offer their services to any municipal, Government or other institution for the sole purpose of getting the right thing done, instead of the wrong thing. I must say that they have been rewarded in that several institutions and municipalities have acknowledged them as the leading experts, and have asked for their advice. I feel sure that that is sufficient for them, that they are achieving their object. I take it gentlemen, we will follow the same procedure in connection with this paper, that is, the Central Council will consider all the views expressed here and take such action as they deem necessary. There is no necessity for any particular resolution. Professor Pearse has put forward a few

suggestions, and Mr. Porter has put forward several, and the whole question will be considered by the Central Council.

AGREED.

PROFESSOR PEARSE: Mr. President, I should very much like to make a statement in connection with this town planning exhibition. I would like it minuted, that we are very indebted to the following gentlemen for this exhibition. I forgot when I was standing there just now, to mention Mr. Rees Poole in particular. He took the trouble to send over, not only that drawing of Mombasa, but the other one along-side, showing the lay-out of the Square, at Pretoria. And I know he made a special point of coming over to this Conference this morning so as to assist us. I think we owe him a deep debt of gratitude. I would also like to thank Mr. Cleland for sending over the lay-out of the Union Buildings grounds. If you look at the date you will see it is, 4th December. He evidently got his staff on to it and specially prepared that drawing of the lay-out for this Exhibition. And he sent us as well those fine aerial photographs. Mr. Perry, of Capetown, collected all these schemes from the Cape and several others from overseas and sent them up; and Mr. Powers brought those from Durban. If it had not been for these four gentlemen, and of course, Mr. Porter, whom we have here to draw upon as required, we should not have been able to exhibit these fine schemes to the Congress.



STANDARD CONDITIONS OF CONTRACT. TENDERS IN ENDORSED ENVELOPES. SPECIFIED SCHEDULES OF QUANTITIES.

By W. A. RITCHIE FALLON.

Mr. RITCHIE FALLON: Mr. President and Gentlemen: I do not propose to detain you with an actual paper on these subjects. As I remarked earlier in the Conference, "Specified Schedules of Quantities" might be omitted altogether. But I propose to outline what the Central Council has been doing in connection with Tenders in Endorsed Envelopes, and Standard Conditions of Contract, and the troubles we have to meet. In connection with the Tenders in Endorsed Envelopes, as you may know, at the August meeting of the Central Council they received a deputation from the Master Builders, who put up the strongest case they could on behalf of the endorsed envelopes. The Central Council at that meeting could not see their way to agree with the Master Builders and informed them to that effect. The Master Builders then requested us to hold the matter over until they had had a chance of discussing it in Congress. We have had another meeting with them last week and practically came to almost a deadlock. The Central Council still cannot see its way to revise its resolution, and the Master Builders are still very insistent that they have the right on their side. In the matter of general reasons that were originally put up to the Master Builders, I think between the Natal Institute and the Cape Institute a very fair collection of reasons for not recognising this system of endorsed envelopes was put forward. With your permission, I will read the letter that was sent by the Cape Institute to the local Cape Master Builders' Association. I propose to read that one, instead of the Natal one, which I have here, because Natal first took steps in the matter, and the Cape took advantage of this to the extent of practically adopting all Natal's reasons and adding one or two. The letter to the Cape Master Builders ran:

"Re Tenders in M.B.A. Official Envelopes. In the interests of the Building Industry generally my Institute suggests that your Association take steps as soon as possible to discontinue the use of tender envelopes bearing the endorsement "Not to be opened if in competition with non-members of the National Federation of Building Trade Employers in South Africa" in that any recognition of the endorsement would, in the opinion of my Institute, be undesirable because:—

(1) It would constitute a restriction of fair trading in limiting competition, and therefore inimical to the interests of Building owners.

(2) It would constitute a discrimination against general architectural practitioners and private building owners as compared to Government and other Public Bodies and Corporations.

(3) Building owners frequently desire to add to the Architect's list of invitations to tender, and under these circumstances such restrictions would become vexatious and embarrassing to Architects.

(4) On general grounds it is undesirable that Architects identify themselves, either individually or collectively, with any particular sections of building Contractors in any manner by which the Architect's freedom of action in obtaining tenders for work is in any degree restricted or influenced.

(5) Irregularities in the submission of tenders in prescribed and other envelopes, cause confusion, doubt and suspicion in the minds of building owners.

(6) After two years experience it is the considered opinion of this Institute as well as of other Provincial Bodies of Architects that the practice is unsound in principle and undesirable in operation."

That letter was dated 22nd December, 1927; that is, it was written before the Master Builders met the Central Council in August last (1928). Having very fully debated the matter, both Architects and Builders, at that last meeting of the Central Council, in the matter of closing the discussion I suggested that as a non-legalised body the Master Builders were seeking the effects of registration, or legalisation, without being prepared to bear the responsibility thereof; and that in order to arrive at that position, they were trying to persuade a professional body, now registered, or legalised, to assist them; and that the members of that professional body had no power to bind the building owner. Further, in discussion during this session of the Council, matters were really gone through pretty thoroughly again, particularly by the Builders. They adduced no further evidence, as before mentioned, in support of their suggestion. They were even asked, was it not possible for them to attain the same object through domestic organisation, in that the point the professions were taking exception to was that they were not prepared to accept tenders that had any endorsement thereon, or restriction, but the professions could not look to Builders and insist upon their submitting tenders, when the Builders did not desire to tender. We have all had the experience, in calling for tenders, that certain Builders would come along and regret that they were unable to tender as they had too much work on: would the Architect just leave them off the list this time? I am sure no Architect has ever borne a builder a grudge for anything like that. And it was suggested if they did not desire to tender, they should simply refrain from tendering. They raised the point as to information as to the type of tenders being asked for. It was submitted that no Architect would decline to state whether there were non-Master Builders tendering for the job or not. They could apply to the office of the Architect, the Architect stating that he had non-Master Builders as well as Master Builders on his list, and they could politely decline to tender. This, not in open discussion, but in private

discussion with a couple of Master Builders after the meeting, was turned down on these grounds. I submitted that it was quite possible. They said, "No." Why? "Well, if that happened, and the Architect stated that he had other than Master Builders on his list, thirty three and a third of their membership would 'rat' on their own organisation, because, having been informed there were other than Master Builders tendering they would be assured that at least A, B, C, and D of the Master Builders would not tender, so that they would hail this as a glorious opportunity to go in and tender not in competition with A, B, C and D." If they cannot be sufficiently loyal to their organisation, to hang together on a point like that, I submit it is a still further argument in refusing to recognise this proposition. But although I have put up all these different odds and ends in the way of reasons, and added this one, I would like to impress upon this Congress the real, main point of the thing is that it is wrong in principle. I think with that I might leave the subject of the endorsed envelope, with the remark that both sides to the argument being quite convinced that they are right, we have suggested that they might like to arbitrate on the matter. Arbitration is the general refuge for disputes without really losing your "wool" over the thing, pretty well throughout the world. The other little matter that has been the subject of discussion between the Master Builders and your Central Council is the Standard Conditions of Contract. My recollection of meetings between builders and architects runs back a good many years on this subject, and it has been lying more or less dormant awaiting the decision of the Royal Institute of British Architects. As most of you are no doubt aware, conditions of contract have been the subject of very careful inquiry, and of Conferences, in the Old Country, even to the extent that a new form was got out by the representatives of both the Architects and the Builders and other bodies interested in building contracts. This form was got out and was submitted to the Royal Institute for adoption in general meeting. It raised a storm of protest practically throughout Great Britain. So much so, that the Council of the Royal Institute have not been able to suggest that it should be adopted. They dare not even go and put it to the general meeting. And they now suggest reopening the matter on the basis of a contract that was formulated in 1909, as far as I remember—I may not be quite correct.

THE PRESIDENT-IN-CHIEF: Quite correct.

Mr. RITCHIE FALLON: So, the builders having brought up the matter, particularly with regard to Clause 21, which sets out the liability of the builder for damages, and having stated that their counsel considered that they were open to all sorts of damages—it is known as Clause 21 in the contract that was used up here; in the Cape we are still using what we call the blue contract, clause 21 of which is "Damage to person and property." The builders' counsel advised them they were liable for all damage, whether due to their negligence, or their servants' negligence, or not. Your Central Council put this clause to their legal advisers, and were advised that that is not the position, but we could add a small sentence, making it perfectly clear that this did not apply to damage that was not caused by negligence on the part of the builder. There

are one or two other little points in the contract generally that wanted clearing up, but the builders quite realised the position and agree with us that it would be rather a waste of time if we paddled into the standard conditions of contract here before they have settled the matter in the Old Country. There is a point I would just draw your attention to. First of all, in the Royal Institute suggested new contract form, I think they have a very excellent suggestion at the end. On the last page they have an appendix; in this appendix are all the blanks for filling in. I think it would be of great assistance if you could collect all those items on one page. There would not be much chance of missing them or having them left out. "Damages for non-completion," is a clause that I have always more or less shied at. I don't think it has ever been thoroughly fought out in the courts, as to whether it is valid if it is filled in in accordance with any of these conditions of contract I have here, and I am firmly of the opinion that if a man is to be mulcted in damages for non-completion, he should certainly get a bonus on completion. With regard to the retention of moneys: in some cases enormous sums of money are held up in the pockets of the building owner. He is not entitled to the interest that money is earning whilst lying there, because he is simply holding it as a guarantee of good faith by the contractor. In one of these sets, I don't know which it is now, it is suggested that such moneys be invested in the joint names of the building owner and contractor. A very equitable arrangement, I think. "Arbitration." All these conditions of contract appear to me to assume that the Architect can only take a hand in it on one side. I dislike it extremely, so much so that I always alter what we use in the Cape. The conditions I see here read, "In the event of any question, dispute or difference arising between the Employer or Architect on the one hand, and the Contractor on the other." I fail to see, gentlemen, how an impartial judge between two contracting parties can really bind himself up like that: only on one side. I think the Architect should be left entirely at liberty, and the clause should rather read—I will read the Cape one, which I referred to altering: "Arbitration: Provided always that in case any dispute, or difference, shall arise between the Employer and/or the Architect and/or the Contractor." That allows for a three-cornered contest, anyhow. Another item that strikes me is the price for extras, how ascertained. Some of these contracts state that the fees for measuring extras should be added to the bill. Rather a pernicious system. I think we have had quite a lot of that during the Congress, but it goes right back into your conditions of contract.

Mr. E. M. POWERS: I would like most heartily to support what Mr. Ritchie Fallon has told you. Firstly about the endorsed envelopes: it is the endorsed envelope which I have nearest to heart. At this stage I would like to say, contrary to some speakers previously, that their remarks be kept out of the Press, that in this case I would like the fullest Press report to be given on this point. For this reason. As Mr. Ritchie Fallon told you, the primary objection apparently emanated from Natal. Natal had never accepted thoroughly the endorsed envelope. And for that reason, as a delegate from Natal, I have been subjected since I have been at this Conference to what I consider unwarranted attacks by members of the Master Build-

ers, as the man who was responsible for this. I don't wish to labour that point, because, when I went down to Natal some two or three years ago, I found the matter had been under a long discussion, and that the Natal Institute had written to the Master Builders—the letter is filed and dated, and a copy has been sent to them—"that the endorsed envelope, at your suggestion, having been tried for the past twelve months, has been found so unsatisfactory, that we have decided not to continue the principle." That was written prior to my going to Durban. But, Mr. President, that is by the way. The real thing I want to say is, the Natal Institute of Architects fully appreciates in every respect what the Master Builders' Association has done in this country for the building trades and the building owners. We never for a moment have thought they wished to make a ring. We appreciate that. And in reference to their letter, which was sent to the Central Council, I wish particularly to emphasise that point. It seemed to me some of the arguments raised in that letter, that the envelope built up the Association of Master Builders, is the most absurd thing one could ever read. I would also like to say that when things became a little acute in Natal, I was approached by the Institute, not as one of their members, but as the Corresponding Secretary of the R.I.B.A., to communicate with Headquarters in London. A lengthy letter was drafted and sent, asking for the fullest information in that respect. An acknowledgement was received, that enquiries were being made, and I have since had a reply from the Secretary of the Royal Institute of British Architects, that they have made enquiries in all districts in Great Britain, and they can find no trace of any such procedure being adopted in that country; nor is it known that the Master Builders' Association of Great Britain have attempted to obtain tenders from one section of the community. That I think is a very strong point. I don't wish to go over the ground and the reasons stated in the letter which Mr. Ritchie Fallon has given you. I think there were five reasons in respect of which the endorsement is considered undesirable. There are one or two other points, however, and in this connection I would like to say that even among our own members there seems to be an idea that the Master Builders should be supported. Of course, the Master Builders have said, "You as a registered body should support us in our efforts to bring about better conditions in the building trades." We are, as you know, Sir, always willing to give our support in that matter, and our members who did not take this point quite so seriously, have said, "I have found no difficulty in complying with the request in the district in which I practice." One quite appreciates that, and must congratulate those members for being in such a favourable position that they find no disability in that particular district. But we in Natal had found very considerable difficulty, and I think also in the Cape. I think our cases are almost parallel. Apart from the reasons that have been given by Mr. Ritchie Fallon, might I give two other reasons why I think the principle of endorsement is bad? The Master Builders tell you there is no coercion. And, curiously enough, in view of that remark, one of your prominent builders here at a social function the other evening said, "We are going to force"—force: that is the word he used—"every master builder in South Africa into our Association, by the endorsement." I said, "That means through the architectural profession?" He said, "Yes,

through the architectural profession." Well, that is coercion. But the argument put up is that the building owner has the choice. They say, "We put our tender in with an endorsement. You can take it or leave it. You have the choice." That Mr. President, I consider one of the most insidious arguments that has ever been put forward, because it is not an equal choice; it is a choice put before the building owner, very heavily weighted on the one side, and that side is the Master Builders'. May I refer to the particular methods of tendering? The first in the case of large buildings, is by advertisement, and there the tenders come in from all and sundry. With regard to Government authorities and the Railways, and Municipalities, of course we know that they will accept tenders from anyone. There are other people who are in a somewhat similar position. Take the banking institutions in this country or the big commercial houses, and you will find in reference to them, when they are contemplating alterations or additions, or even new buildings, they do an enormous amount of building with Master Builders and with non-Master Builders, or shall I say with members of the Federation and non-members of the Federation. At the present time the Standard Bank of South Africa are calling for tenders for additions to one of their important branches in Durban, and I know that among their customers are a number of non-members of the Master Builders' Association who are tendering for that work. No banking corporation in South Africa will say, "We will only have tenders from this section of our customers, or that section of our customers." And the same argument also applies to the big merchants, who supply building and other material to both classes of builders. Then we come to the choice. We know, too, that building owners are not always so amenable to the Architect's advice as the Master Builders would have us think. Building owners are most difficult people in some cases to deal with. Now, Sir, during this Congress it has been emphasised, what are we doing for the young Architect and how are we training him: what are we doing for the future of the architectural profession? The young Architect, anxious to please his employer, the building owner, for whom he is acting in a position of trust, is asked to invite tenders. The tenders come along, and there are the two batches: those on the one hand with the endorsement, and those on the other hand without the endorsement. The building owner has to make the choice. He asks his Architect for his advice. What can the Architect say? He shrugs his shoulders and says, "There you are, Sir," He either decides for one of the other. And then he is not satisfied with the tenders. "Well," he says, "I am going to open these others." What is the Architect to do? Is he to say, "No, I forbid you to touch that packet"? It is, Mr. President, I think a weapon and it is admitted it is the one weapon they can use most effectively to gain their ends. But it is a weapon which they have put into the hands of the Architect to discharge; the Architect is the man who is to use the weapon. And it is placing the Architect in a most invidious position. That is the case with regard to advertising for tenders. Then what happens when an Architect invites builders to tender? It is always understood that if you invite a man to tender, the man whose tender is lowest, if there are no other reasons, should have the job. The building owner says, "I would like Mr. So-and-so and Mr. So-and-so to tender, and any

others that you think proper." He gives you those names because of commercial and business interests between the two parties. He says, "These people do business with me. I want to give them an opportunity of reciprocating." The Architect points out to him amongst these people there are some in both camps, if I may use the expression; he says, "I cannot call for tenders from these two lots of people." He has to explain the reason why: the Master Builders refuse to tender against a non-member. In that connection I do submit that this ought to be a question of honour between individuals rather than between societies. Mr. Fallon just touched upon the point I was going to make, and that is, the Builder always has it in his power to refuse or to make some excuse why he should not tender. Every Architect—I know it is the practice of many of them in Durban—if the tenderers wish to know who are tendering, say, "I am inviting tenders from So-and-so and So-and-so." And if the Master Builder feels he does not wish to tender against certain people, he can surely make an excuse. Let him refrain from tendering if he does not like the conditions. If a builder thinks he is getting honourable treatment in a certain office, let him place his confidence in that office. If he does not think he is going to get proper and honourable treatment, leave the thing alone. We know among the architectural profession we have a number of black sheep, and there are also a certain number of black sheep among the Master Builders. That I think emphasises the aspect of the Architect who is in the unfortunate position of being asked to invite tenders from the two camps. In my own experience recently such a case occurred. The building owner said, "I have done a lot of business with this man. He has given me a big order in connection with the new Station in Johannesburg for plant. And you say he cannot tender for my work here in Durban." What a ridiculous position. Then there are the abuses that arise from this envelope, because you never get people to see alike, and it immediately opens up an avenue for abuse of privilege. The Master Builders in their circular letter say they open their doors wide to every master-builder in the Union who wishes to join their Association, which of course means the usual atmosphere and an annual subscription. Isn't it rather odd that the Architects say, "I cannot accept a tender from you. You are not a Master Builder." He rushes round to the Master Builders' Association, pays his £25 and he can tender for the next job that comes along. They have taken him in, not because of his ability, or his position as a Master Builder, but because he goes into the ranks. And you will find, particularly in Natal, and I have no doubt the same thing obtains here in the Transvaal, and in the Cape, that you have good and bad amongst the Master Builders, and good and bad outside the Master Builders. And it is no criterion, if you agree to take a tender from a Master Builder, that you have a guarantee of his being a first-class man. Then there are the abuses. This has actually happened: it places the Architect in a horrible position. Recently in Durban one of our well-known Surveyors, who has been present at this Conference, issued bills of quantities for a certain building, and only to the Master Builders. The building owner came along and he said, "I want to have a look at these documents; I want to run through them. Will you let me have a look at the plans and the bills of quantities?" "Yes," said the Architect. And when the tenders came in,

he found they had been handed over to a friend of the proprietor, and there was another tender put in: not by his invitation, but by the wish of the owner, which I maintain the owner was absolutely privileged and entitled to do. He is the man who is putting up the money; he is the man who is paying for everything, and he has a perfect right to call for tenders from any source whatever. That is one of the abuses. Another abuse, which is really Gilbertian; Recently in my own office I had a small alteration job to a big bakery firm, well known in this country. They said, "It is only a small job. We want three or four tenders. Messrs. So-and-so, who did the work just opposite to us: we would like them to give a tender; we would like So-and-so and So-and-so." They were all of them non-members of the Master Builders' Association. I thought my way was quite simple, and so I felt very much happier than in preceding cases. But what happened? One of the past-presidents of the Master Builders' Association came into my office. He said, "I want to tender for this job." "Oh," but I said, "you cannot tender in a case like this. In any case, it is only a small job. It is against your principles to tender with non-members of your Association." "Oh, yes, but under certain circumstances I am permitted to tender against non-members of my Association, if I am the only member tendering, but I am not allowed to tender against non-members in competition with my own members." Now, can you understand anything more absurd than that? And I would like to add, in connection with that job, that particular individual, the Master Builder—there was only a matter of £15 in it—but on principle he did not refuse to take the job, and carried it out. I don't want to emphasise these irregularities but I am sure this Congress can see, if we accept this endorsement, it means we tacitly come to an agreement on this point. As a body recently having Parliamentary legislation in our favour in this country, we are trustees for a certain section of the community, that is, the building owners, and if we accept such an agreement, we are betraying that trust; we are showing partiality to a section of the community which is trying, by this method, to secure its own ends. And we may possibly find that the whole thing is simply a bogey. That is all I have to say on this point. So far as Natal is concerned, I am one of the representatives; Mr. Cross is here also from Natal; and I am sorry Mr. Payne is not here at the moment, because he feels equally strongly with me on this point, perhaps more so than I myself, as he has only just recently, after the death of his brother, had to make a journey to Europe. During his absence in Europe—I know it is a fact—his assistant, quite a young man, complained to the Natal Institute and sought the advice of the Council, because in the absence of his principal in Europe his office was boycotted by the Master Builders' Association, of Durban. It was a very low-down trick, in my opinion. Perhaps I should not use such strong language, but, in the absence of the principal to put the pressure of an Association with such power as the Federation on the unfortunate assistant left in charge, to my mind was, to say the least of it, the most unsporting thing one could come across. I thank you, gentlemen, for the patience with which you have listened to me on this matter. I most strongly support what the Council has done in its negotiations, and I thank Mr. Ritchie Fallon for bringing the matter so ably before you.

THE PRESIDENT-IN-CHIEF: Gentlemen, I might mention, with regard to the contract, the Builders at their last Congress were distinctly under the impression that the new contract, suggested by the Royal Institute of British Architects and the Federation of Master Builders and other Institutions at Home, had more or less been accepted by all parties. That was not so. It was accepted provisionally, with the view that it should be put before the full Council and members of their Association. Now, as you know, in my position as President-in-Chief of the South African Institute of Architects, I have been appointed a member of the Council of the Royal Institute of British Architects, and in consequence I receive all the minutes of their meetings, though, of course, I am not able to attend the meetings. The last minutes I received from them very clearly and emphatically state the position with regard to this contract.

THE NEW STANDARD FORM OF CONTRACT.

The Practice Standing Committee have given careful consideration to the detailed comments on the new Form of Contract received from the Allied Societies and individual members, and it is evident that there is no prospect of the Form being approved by the General Body unless it is drastically amended.

"It is, therefore, recommended that the Council should inform the National Federation of Building Trades Employers of the position and suggest to them the reopening of negotiations with the 1909 Form as the basis for discussion, having regard to the following. (Then they run through several items).

"If the Builders do not see their way to adopting this suggestion, there would appear to be no alternative but to summon the adjourned General Meeting and re-submit the proposed Form with the almost inevitable prospect of rejection."

That conveys the exact position regarding that contract form. No doubt they will meet the Federation and they will discuss these several items, taking the 1909 form as the basis, and some practical solution will be arrived at and a new contract form issued. On those grounds we considered we were justified in requesting the Master Builders to leave the matter over entirely until this was done. That is the position with regard to the contract. With regard to the envelopes Mr. Ritchie Fallon has, I think, placed the matter very clearly before you, but I want to lay particular stress on the exact position at the present moment. I think the letter containing our suggestion must now be in the hands of the Federation, so I don't think there is any harm in disclosing what has happened. Of course, they have not yet had time to call a meeting to consider our proposition. We found that we were at an absolute deadlock. The Master Builders were emphatic that they were going to adhere to this envelope. After the last deputation we had a Council meeting and our Council was absolutely unanimous that we would not permit the use of this envelope. There the matter stands. However, in talking round the subject we ultimately decided that the most feasible solution to the thing would be for some neutral individual, in the person of a magistrate or legal man, to

act as sole arbitrator in settling the question; both sides to accept his decision. Now, we feel that we have honestly put forward something to assist in settling this question. If they turn it down, we feel that the responsibility is thrown on to them. If they accept the proposition we feel that we are justified in advising you to accept the decision of the Arbitrator. That is the exact position as regards the Builders. I wanted to make that quite clear, because there may be some mention about our disclosing this, but I think we are justified in disclosing to you, gentlemen, the action the Central Council has taken; otherwise you would not be able to discuss this matter fully this afternoon. Now, the question of the form of contract and the envelopes is still open for discussion.

Mr. A. G. CROSS: Mr. President, I wish to thank Mr. Ritchie Fallon for his remarks on the matter of the envelopes and the contract. I rise to support Mr. Powers' remarks, which have been very explicit on the matter of the envelopes. I would like to endorse the position as outlined by Mr. Powers. I will only give one instance, as it occurred to me; one instance, I think, is sufficient to show the position in Durban. A certain Insurance Company wished to put up a building. They had a large number of builders on their list amongst the people with whom they had done business, and they wished every one of these builders to have an opportunity to tender for their work. They gave me a very long list of people to be asked to tender, some of them Master Builders, and some of them non-Master Builders. The tenders were received. I separated the Master Builders from the non-Master Builders, and I handed the unopened tenders to the manager of the Insurance Company. I told him the position. He applied to the Master Builders' Association and explained his position to them and asked whether they would forego their rule. They said they could not. When it came to making a final decision, he elected to open the Master Builders' tenders, naturally, and the work was carried out by a member of the Master Builders. He held the other tenders back for a matter of three months and for a matter of information, he opened them after the question had died down, and he found that he would not have gained more than five pounds had he opened the other tenders. But the position that was created by these envelopes being endorsed was most annoying to all parties concerned, and it placed me in a very difficult position.

Mr. R. H. JONES: Mr. President, with regard to this matter, one speaker mentioned about Builders asking you who the other builders were who were tendering. In England it is the custom not to let a builder know who else is tendering, and I was surprised when I came here to find the builders expected you to tell them who were tendering, because I know as a matter of fact that they conspire, and they agree that one of them should get the tender, and the successful one agrees to send them what he is quoting. Then they put in a larger figure; so that the building owner does not get the benefit of free competition. Another experience of mine, when I advised my client to get tenders, was that he had got another estimate without saying anything to me. In only one case in my experience have I been able to get tenders in a proper manner, that is to say, all the tenders sealed and opened in the presence of the Architect and Builders. But here the

client takes the tenders away and writes to a particular man that he may fancy, to modify his price, if he is a bit above somebody else.

Mr. F. WILLIAMSON: Mr. President, in spite of the fairly full description of the position of the negotiations with the Master Builders at the moment, I suggest it might be of considerable interest to the Congress if the last letter from the Central Council to the Master Builders' Association was read. The Congress at the moment seems to be unanimously in favour of adhering to the original proposal, which was, as we all know, to disapprove of the practice of the use of the endorsed envelope. As pointed out by you, Sir, and as the letter will show even more clearly, negotiations have actually begun. I personally would like, in view of the number of delegates here from the other provinces, the ratification of that action of the Central Council in this matter. The position might be rather difficult and rather awkward, and questions might be asked of the delegates in other parts of the Union, in the event of the Arbitrator's decision going against us; and in view particularly of the fact that we are unanimously in favour of adhering to our original suggestion, the position in the future might be difficult unless members know the contents of the actual letter we have written. They will then know what steps the Central Council has taken with the object of arriving at a settlement. As you pointed out yourself, Sir, there is a deadlock at the moment. I think the Central Council has gone as far as it should go, in the direction of settlement. I would like to stress the point, that in the event of the Arbitrator's decision being in favour of the Master Builders' ideas, the Architects of the Union as a whole may feel very surprised, in view of the very strong expressions of opinion from delegates here to-day. I therefore suggest, if you think fit, that the letter be read, and I submit the delegates might particularly concentrate for a few minutes on this rather important question of arbitration.

THE PRESIDENT-IN-CHIEF: I have no objection to that, as long as it is not made public. I don't want to give the Builders an opportunity of saying that they only received the letter this morning, and they might have a just complaint in saying we are discussing the thing in public when they had not had time really to read the letter. If it is treated as confidential, I think this meeting should have the contents of the letter.

Mr. F. WILLIAMSON: I suggest that with a certain amount of hesitation, in view of the points you have just made. I feel nevertheless the delegates should know the exact state of the negotiations with the Master Builders to-day. The matter can be kept out of the Press at the moment, as it is very important for the delegates to be advised of the actual position.

THE PRESIDENT-IN-CHIEF: I will ask Mr. Fallon to read the letter.

Mr. RITCHIE FALLON: This is the letter, gentlemen, written by the Registrar to the Secretary of the National Federation of Building Trade Employers of South Africa.

Dear Sir,

December 7th, 1928.

With reference to the Deputation from your Federation received by the Central Council on Friday last, I have to advise you that at its meeting on Saturday, December 1st, 1928, the Central Council passed the following resolution, *nem. con.*:

"That this Central Council unanimously reaffirms its resolution of August, 1928, that it is of opinion that the use of the endorsed envelope is a practice unsound in principle and undesirable in operation, but in view of the resolution of the Congress of Master Builders, to adhere to the endorsed envelope, this Council suggests, without prejudice, that an endeavour should be made to arrive at a solution on the following lines:

"The case to be submitted to an Arbitrator, such as the Chief Magistrate, to decide:

"Whether the Institute of South African Architects, composed of all the Architects and Quantity Surveyors of the Union and acting as agents for Building Owners, is justified in refusing to recognise the practice of the National Federation of Building Trade Employers of South Africa in the use of their endorsed envelope."

THE PRESIDENT-IN-CHIEF: Gentlemen, you will notice that it distinctly says, "without prejudice," so that if they should approve of the principle it may be advisable for the Central Council, or it may be thought advisable, to refer the matter to the Provincial Institutes and the Chapter for their decision. It does not say that we shall forthwith go to arbitration. It was sent out as a feeler to them to see if it would lead to some means of settling the question. But the matter is still open. It is quite possible, if they should approve of the principle of arbitration, that the Central Council may think it necessary and advisable to refer the matter to the Provincial Institutes and the Chapter before taking any action.

Mr. F. WILLIAMSON: By that I take it you mean that the Central Council has not committed itself to abide, at the moment, by the decision of an independent Arbitrator?

THE PRESIDENT-IN-CHIEF: It says, "without prejudice" distinctly; it is submitted to them without prejudice. "This Council suggests, without prejudice, that an endeavour should be made to arrive at a solution on the following lines." I think that clearly protects us.

Mr. F. WILLIAMSON: Before a decision could be made, I take it, on those lines you consider that the Central Council would consider it wise to submit the matter to the Provincial Institutes and the Chapter?

THE PRESIDENT-IN-CHIEF: It is quite possible they might; I don't say they would. I cannot say what the Central Council will decide, but it is quite possible that the Central Council may decide, before going to that extreme measure, of getting the approval of the respective Provincial Institutes and the Chapter.

PROFESSOR PEARSE: Mr. President, I have listened with very great interest to the discussion. As you know, I am not a practising Architect, but, teaching the subject of professional ethics, contracts and so on, I have attended these discussions with the idea of hearing what this Congress has got to say about these matters. I do feel that every effort should be made to tell the Builders that at heart we are with them. You heard yesterday about stars, hitching wagons to stars and so on, but many other ideals, as some may call them, have been discussed at this Conference, and I think if the Builders knew that this Conference in discussing these ideals has considered the Builders' ideals, it would be all the better for the profession. I feel that all Architects are anxious to get the best work done by the best builders, and with the best artisans. We are all aiming at that. For that reason, I think all Architects on every possible occasion should employ Master Builders. We know they employ the best workmen and pay them the best wages. But I do think that one point should be emphasised to the Builders, and that is, that the factor of the owner—because that is the point that affects us as Architects more than anything else; the factor of the owner enters into the position; and therefore it is quite impossible to my mind to agree to their request at the present moment. So I feel they ought to be told that the ideals expressed at this Conference will eventually be obtained, at least we hope so, as far as Architects are concerned, and that this ideal of accepting the Master Builders' envelopes will also be attained. I consider that some expression of opinion from this Conference might be given to the Builders, that is, that their ideals are our own. If that could be given out for the moment, I think it will ease the situation tremendously, because in the last few days I have listened with great interest, outside this Conference, to heated arguments between Builders and Architects. And I do feel that, if the Builders realise that point, they will not look upon our profession, or rather look upon our attitude in quite the same way as they do. I read every word of their Conference at Durban; I read it through two or three times; I read statements from members from Port Elizabeth, or East London, who said they were going to force us to adopt this. Well, it is absolute nonsense to talk like that. They have got to realise what the factors are that are influencing us. And I think this representative body, making a statement of that sort to the Builders, would prove of great assistance in this discussion. I don't know, Mr. President, whether you are also discussing the question of conditions of contract at this stage. If you are discussing the conditions of contract, I have read those through and through, both the R.I.B.A. conditions and our own. In lecturing on the subject of contracts, I compared the two very carefully with the students and discussed them very fully, and I feel, on reading through those R.I.B.A. conditions, that there is nothing very much at variance with our own conditions except Clause 21, the question of the responsibility of the builder. And I think if that is thrashed out at a conference, well represented by the different Provincial Institutes and the representatives of the different Master Builders' Associations throughout the country, we might easily clear up that difficulty. And also, I think, if to that conference were added legal representatives from the different Provinces, it would be of the greatest value, because from what I have heard and

read in the papers, in the technical Press, in England as well as here, and in the reports of Builders' Conferences, there is a tremendous variation of opinion among legal representatives about this matter. We get an opinion in Johannesburg: it seems to be totally different to that which they get at the Cape. But you should get the legal opinion of the Cape, Natal, Free State and Transvaal, and put those before a Congress. I am convinced from my own experience of legal matters—and I have been called in as an architectural expert witness on two or three legal cases, discussing matters very fully with different barristers; I am quite convinced that the Builders and Architects, once having half a dozen legal opinions before them, could settle the matter themselves. I would urge, therefore, that the question of the conditions of contract be held up until they have been very thoroughly thrashed out. Because, if we are going to attain those ideals that we have been discussing at this Conference, the question of the conditions of contract is going to be one of the greatest of them. And we would like to write to the R.I.B.A. and say, "These are our conditions of contract. If you possibly can, improve upon them."

Mr. ALLEN WILSON: Mr. President, I don't want the other delegates to go away with the idea that we up here are all averse to the envelope. It is not that. As we see from the resolution sent to the Master Builders, it is worded that we are acting as agents for the building owner, and it is as agents for the building owner that we cannot accept this envelope. That I think is made quite clear in the letter which Mr. Fallon read out. If the envelopes come along we don't object to them at all. The point is, we cannot accept them on behalf of the building owner; we cannot, in other words promise anything on behalf of a third person.

THE PRESIDENT-IN-CHIEF: Regarding the contract, gentlemen, the Builders for the time being are quite satisfied to carry on with the existing contract, as I mentioned before, until the R.I.B.A. and the Federation at Home have framed theirs, with the exception of Clause 21, which was referred to. Now, our legal advisers have told us that their interpretation of Clause 21 is totally different to the interpretation given by counsel for the Builders. But they tell us, if we are in agreement with the intention of that clause, that is, the same intention that the Builders wish to put upon it, we can add a certain sub-clause, which has been framed for us, and, as a matter of fact we have decided that we are in agreement with it, because our legal adviser distinctly assures us that our reading of the clause is his reading of the clause. If that be so, we cannot do any harm by altering that clause to make it comply with their wishes. So I think, as far as the contract is concerned, there is no difficulty about it at present. The Builders are quite content to go on with it, with that particular alteration, until as I say, the contract is framed by the people at Home.

Mr. HAROLD PORTER: May I ask if any case has been decided against a contractor on that clause?

THE PRESIDENT-IN-CHIEF: We were advised, no.

Mr. A. G. CROSS: I omitted to add, in that case I mentioned about the insurance manager, that he was placed in a very invidious position of having to explain to those clients who were non-members of the Master Builders Association that he could not open their tenders, and he felt his position very keenly.

THE PRESIDENT-IN-CHIEF: That is the position. It was pointed out clearly by Mr. Powers this morning: he gave several instances of that nature. How much more so is it in regard to institutions which are representative of ratepayers—Government institutions, Municipal institutions? We were arguing the point with a Town Councillor. He said, "Supposing we were going to erect a Town Hall, and before you people had your Act, but you had an Institute of Architects. Might we not have said, 'We will confine this competition for this Town Hall only to members of the Institute of Architects'?" I said, "Probably you could do it;" "But," I said, "surely you dare not." What about all the other Architects who were outside the Institute here? Ratepayers. Surely they had a right to demand that their rights should be considered as much as any other section of the community? Surely that applies right through the whole system? What right has any Municipality, or Government, representing the whole of the ratepayers, to hand over a portion of their work to a section of the community? I fail to see that it is possible. That same point, of course, is involved in the instances Mr. Powers mentioned, and in the case of the Insurance Company Mr. Cross has just mentioned, which has clients among all sections of the public. They have to penalise them; that is what it amounts to.

Mr. CROSS: The Master Builders waive their right in tendering to municipalities and to the P.W.D.

THE PRESIDENT-IN-CHIEF: Do they waive their rights? My opinion is not that they have waived their rights; my opinion is that they cannot possibly obtain the sanction of the Municipality and the Government, that they have no choice about it. My feeling is that no Municipality or Government institution in the country could do it. I don't say that they legally cannot do it, but it is morally wrong for them to do it. They would soon hear from their ratepayers if they did do it.

Mr. E. M. POWERS: May I add a word to that? That is an argument which could be used, and the reply very often is that the Government and Municipality are using ratepayers' or taxpayers' money, and they haven't that right. Isn't the argument all the more in favour of the Architect when he is the sole trustee of the client's purse, and by whom he is entrusted with money? We are not dealing with the coffers of the State, but we are dealing with another man's money, in the case of the private Architect and his Client.

THE PRESIDENT-IN-CHIEF: Some say that is an argument of the unfairness of the Builders, in taking advantage of the position of the Architects, when they know they cannot take advantage of the Municipalities.

Mr. F. WILLIAMSON: Surely the private building owner should have equal rights to the rights extended to a public or municipal body?

THE PRESIDENT-IN-CHIEF: Exactly.

Mr. RITCHIE FALLON (in reply): Mr. President and Gentlemen: In laying this matter before Congress, I purposely avoided anything more than a bare statement of the facts, so as to incite Congress to put up all the points that appealed to members. I must say I very much regret the small attendance this afternoon; I had particularly hoped, by leaving this matter over until the end of the Congress, we might have had the Transvaal members more adequately represented. As you are all aware, the Transvaal membership is far ahead of any other provincial membership, and over and above that the position in the Transvaal has been somewhat different to the position in the other provinces. We regret that we have no representatives from the Orange Free State here with us.

Mr. W. F. WALDECK: Oh yes, you have!

Mr. RITCHIE FALLON: I regret that we have not heard the representative of the Free State on the subject. In the Transvaal the Master Builders' Federation have been in a very strong position; so strong that I might submit it really did not amount to a matter of principle as far as the Transvaal Architects were concerned. And from that position the Transvaal section of the Federation have "read the Riot Act" to the other provincial sections and said, "Nobody has objected to this in the Transvaal. Because they haven't objected, it is a perfectly good scheme. Now, what are you likely to do in the other provinces? Why don't you 'toe the line' with us?" Now, in the other provinces you will find several versions of it—and I am sure the other provinces are with me. We know that they are not in this position; we know, some of us, anyhow, that they would only be too glad to sink this envelope and say, "Let us be finished with this contentious matter, and get on with our work." But whenever the Master Builders meet in Congress, you get the leaders from the Transvaal supporting these envelopes. You get one or two men from the other provinces who say to themselves, "It would be very nice if we were in the same position as the Transvaal." And they are good speakers. They get up; they back the Transvaal speakers. The waverers in the other provinces say, "Yes, it seems very nice. We will back you." And we get unanimous resolutions from the Congress of the Master Builders. But in not one of these Congresses have they discussed the principles of the matter. They confine themselves to details. They tell us as Architects that they have done this, that and the other thing to support us in our profession generally, not only from the registration point of view, and in registration as well. If it was put to the Master Builders as a whole, or to their sectional branches, "Were they prepared before the Architects got registration to reciprocate on similar lines, in that they would not do work for anybody but a member of the Architectural Institutes?" Can you imagine, gentlemen, what the reply would have been? Could they possibly have even camouflaged it and said that they were in sympathy with us and would have passed a resolution to that effect that they would only deal with members of the Institute of Architects? Now, in receiving their deputation we were told about the marvellous amount of work, or support, shall I say, that the Master Builders have given our Institute. We are not denying

that they have supported us, and we duly appreciated their support. But when they come to us with a proposition of this type, it is "altogether a horse of a different colour." To take my little notes seriatim: I think I personally anyhow, and the Cape are likely to agree with me, take off my hat to Natal. They started it. Natal were the first people to definitely put on paper that this practice was wrong in principle. Next in succession the Cape, profiting by Natal's experience, say that they refused to recognise this endorsement. Now, to elaborate a little bit, the Cape realised that it was a question of honour. An endorsed tender envelope having been received by an Architect, the Architect had a perfect right in maintaining to his client that the endorsement should be respected. But the Cape went further than that. The Cape, having been perfectly satisfied that the ethics of the matter, that the principle was wrong, notified the Master Builders that no endorsement would in future be recognised. After that date I think, I am fairly sure, that the whole of the Cape backed up their Institute from that date onwards. The Master Builders, having been duly notified that no endorsement would be recognised, every tender received has been opened, and the Master Builders' Association in the Cape are perfectly well aware of that, because these tender lists have been published from time to time, long before your Central Council passed it as a resolution, that it should be an instruction to all members of the Institute to publish tenders. So that the question of honour has been duly dealt with there. It was duly honoured until such time as due notification had been given. I think I have roughly touched upon the appreciation of the Master Builders in their effort to raise their trade. Speaking for the profession as a whole, I don't think anybody will find fault with me when I lay stress upon the value that the Federation of Master Builders has added to the building trade as a whole in this country. We all welcome that. We are not in any way antagonistic to their ideals for a really clean, good, big and powerful organisation, as long as they will stick to principles that are admissible. I think it was Mr. Powers who drew our attention to some correspondence he had had with the Royal Institute, as to the origin on this envelope. But, gentlemen, the Master Builders I think admitted at least at the August session of this Council, if not before, when taxed with it, that this envelope was their own invention. They were asked if they could quote any other place in the world, let alone the British Isles or the British Empire, where anything similar had been done. They said they could not. But at the same time they were proud of their invention. To my mind it was very clever, but unfortunately not sound in its cleverness. There are so many inventions in this world that are clever but not sound. I wish to disagree with Mr. Powers on one small item. I don't know whether he really meant it in the way I took it. He said something about a man wishing to tender being told who was tendering. That in its literal sense is dangerous. Personally, I am not prepared to state to any tenderer in my office that A, B and C are tendering. But I take it Mr. Powers' idea is that, as Architects we should be perfectly willing to state to a builder, "There are only Master Builders tendering for this," or "This job is not being confined solely to Master Builders." That is all the information that is really necessary for their purpose, and necessary for the purpose I suggested this morning in my opening remarks on this paper, if they

decide whether they will tender, or beg to be excused. Another little point I would like to elaborate, concerning an item raised by Mr. Powers. The Master Builders' Federation, as he noted, do not discriminate as to entrance to their membership. Now, I think all the Institutes before our unification in the Institute of South African Architects, did have a certain amount of discrimination. Speaking from the Cape point of view, at least the Cape did and I think all the other Institutes did the same. We had classes of membership. In the Cape no man was entitled to put up for membership as an Associate unless he had passed an examination equivalent to the intermediate of the Royal Institute. We had certain safeguards when we were a voluntary body. The Master Builders' Federation is still a voluntary body, a very large one, but with no safeguard whatever. Therefore I submit the Master Builders have not made good their case, even to our Institute, that they should be afforded this special consideration. On the whole I would like to lay a little stress on the principle. One or two members have raised particular instances of futility, Gilbertian and other types; I would like the Congress to more or less forget these definite instances and concentrate upon the principle of the matter. Our President-in-Chief spoke on the subject of arbitration and mentioned the Chief Magistrate, or some other legal man. There are two sides to a legal man's door, the bad one and the good one. I need not pursue it, gentlemen. The outside is good. When it comes to a matter of arbitration, may I be preserved from the legal mind! I am quite in accord with the Central Council's suggestion of appointing the Chief Magistrate: I don't think he may be described as the legal mind; he is called upon to adjudicate on all sorts of disputes in human nature. The legal mind is not. And I would like to add a word of warning to the Central Council if I might, that they should eschew the purely legal opinion in the matter, and get a man who is experienced, such as a Chief Magistrate would be, in commercial, industrial and professional disputes. There was something in connection with what Professor Pearse said: I cannot really read my own notes! But I would be very glad if Professor Pearse would add an amendment or suggestion to the resolution I have proposed. In conclusion, Mr. President-in-Chief, I would like to move the following resolution:

That this Congress loyally supports the Central Council in its action in this matter, as a matter of principle.

THE PRESIDENT-IN-CHIEF: I think Professor Pearse's point that you were trying to think of, was in reference to our expressions of sympathy with the Master Builders in connection with their ideals. Well, we have done that personally, of course. Now, gentlemen, that is a distinct resolution: do you wish it to go forward in the form of a resolution?

Mr. WILLIAMSON seconding, the resolution was carried unanimously.

THE PRESIDENT-IN-CHIEF: Gentlemen, some of our members wish to leave at half-past four and wish to say a few words before they leave. I naturally want to get through as much as I can. If we give these members an opportunity at say ten past four, we might carry on afterwards. There are still one or

two important items I want to put to you as quickly as possible. No. 12 on the Agenda: "What Protection does the Institute give against Plans, etc., of non-members?" Mr. Kuschke is unfortunately not here, but this raises the question that we were debating the other day, the question of how to obtain the protection of the practice of the Architect. Now, I submitted the other day there were two ways of doing so: one, by appealing to Parliament to have Clause 3 (c) reinstated; and the other, by doing it through the Municipalities. Now, we at one time in the Transvaal, on the Witwatersrand, obtained the sanction of three or four Municipalities to a by-law, that no plans were to be accepted by the Municipality unless they were signed by a registered architect. That was going very well until some opposition was raised against it, and the Administrator ruled that it was *ultra vires*. Since then we have had legal advice from very eminent counsel, and they contend that it was not *ultra vires*, and there was no justification in withdrawing it on that score, particularly as the Municipalities themselves had agreed to it. Now, that position, if it were attained, would get over the difficulty to a great extent: that is, as all plans have to pass through Municipalities, the Architect would be protected in that the Municipality would accept no plans unless they were signed by a registered Architect. That is one way of doing it. The other way is appealing to Parliament for the reinstatement of Clause 3 (c). As you know, Clause 3 (c) was the clause which protected the practice as well as the name of the Architect. I don't know whether it is worth while discussing this. I understood the majority of members felt that the better way was the reinstatement of Clause 3 (c).

Mr. E. M. POWERS: It is too early after the passing of the Act; it is too fresh in the mind of Parliament.

THE PRESIDENT-IN-CHIEF: We don't say we are going to Parliament immediately for it. But when this was raised, we thought you might advise us which was the better system to adopt.

Mr. RITCHIE FALLON: Both!

THE PRESIDENT-IN-CHIEF: Or, do you wish to leave it for the consideration of the Central Council?

AGREED.

THE PRESIDENT-IN-CHIEF: Another point was raised about this question of discounts with builders. It should have really been on the agenda. I want to go back into history a little about that. When Herbert Baker, as he then was, came up to the Transvaal, I happened to be President of the Transvaal Institute, and he came to me and said he was very concerned about this question of the builders' 10 per cent. discount. He said, "I think we ought to settle this matter somehow or other." It appeared that our contract distinctly stated that no builder was entitled to a discount on the P.C. items. Now, Mr. Baker said, "You know, everybody knows, that the builder is receiving 10 per cent. discount from the merchants, and yet it is stated in our contract that he is not entitled to receive it." We called a meeting of the Chamber of Commerce, the Master Builders and the Architects, and we thrashed this matter out thoroughly. The Chamber

of Commerce said to us, "Gentlemen, this is an old, long-established trade custom, and you cannot break it down." The Builders admitted the same, and they said, "You might just as well admit it, accept the position, face it and provide for it." Well, this was put up before the Architects, and after long consideration and discussion, they nevertheless decided that the Builders should not receive this 10 per cent. The thing is still in the same position as it was then. Our contracts distinctly state that the builder is not entitled to this 10 per cent. discount on P.C. items, and we all know that the builder is accepting this 10 per cent. and every merchant is giving it to him. In fact, you only have to look at a builder's quantities: if you put down £20 for a bath, for instance, and you say, "Allow extra for profit and fixing," he carries forward the £20. If you mention it to him, he says, "Yes, but I am getting a 10 per cent. discount on that."

A MEMBER: And everybody is satisfied.

THE PRESIDENT-IN-CHIEF: And everybody is satisfied. And the client is not receiving any injury. And yet, gentlemen, I am telling you now that Herbert Baker and myself were the only two out of the whole of the Architects who gave support to that proposition, and we were completely out-voted. All the Architects said, "No, we will stick to the contract. The contract says they are not to receive it, and there is an end of it." Now, it is the simplest thing in the world to put in the contract that the Architects acknowledge the established trade custom in Johannesburg, and in South Africa, of a 10 per cent. discount to builders on all items mentioned, and the P.C. items in the contract, and be done with it. It is a matter for your consideration, perhaps at a later date.

Mr. HAROLD PORTER: Mr. President, I want to say, in connection with those P.C. items, that in my quantities at the present moment I always put "Net, so much, gross, so much," and the two items are next to each other. And the contractor, if he does not want any percentage on the item, does not add it. But it is very misleading to a contractor who reckons that those things are absolutely nett, by putting only one figure down . . . But if you put two figures side by side, "Allow P.C. £60 for electric light. Nett P.C. so-and-so, or Gross, so-and-so, and add your 10 per cent. on to it"; if you have the two figures side by side, then in your quantities you can see what he carries forward.

THE PRESIDENT-IN-CHIEF: Then you are not carrying out the conditions of contract, which are supposed to be carried out. It seems to me to want more than that: it wants the contract either altered, or adhered to; one or the other. The principle is not consistent.

Mr. ALLEN WILSON: I agree with Mr. Porter. I always make an item, comparing the item, "Add for fixing for any assistance, and add for profit." I make a separate item of "Add for profit;" a nett sum, "Add for profit," "Add for fixing," or whatever it might be. Now, you are not going to get over the difficulty of the employer who goes to the merchant and says, "I am a cloth dealer, I am a tailor or a tinker—anything you like. And I want, as a tradesman, my 10 per cent." And he gets it, Sir, every time. Where does the builder come in?

THE PRESIDENT-IN-CHIEF: I think the invariable custom is, if an employer goes in to select his own baths and basins, the merchant immediately says, "Who is your builder?" and it is put down to the builder's account. And the builder pays for it; the builder get his 10 per cent.

Mr. ALLEN WILSON: But they give him a different quotation altogether.

THE PRESIDENT-IN-CHIEF: No, I disagree with you there.

Mr. ALLEN WILSON: Then do I understand the merchant allows 20 per cent.?

THE PRESIDENT-IN-CHIEF: No. If an employer goes in to select a bath or a basin, or anything of that kind, he will not get that 10 per cent. off if it goes through the builder's account.

Mr. ALLEN WILSON: I can show you concrete cases any time you like.

THE PRESIDENT-IN-CHIEF: I think it is the principle of the thing; you can't get away from the principle, that it explicitly states in our contract that they are not entitled to it, and yet we know well enough that they are getting it. That is the trouble. And it ought to be flattened out. Make it one thing or the other. As I say, the builders' prices show clearly that discount; they allow for it and reckon on getting it, and it is not fair, they having done it, for the employer to take off another 10 per cent.

Mr. ALLEN WILSON: It is the merchant's own fault.

THE PRESIDENT-IN-CHIEF: No, Sir, the Chamber of Commerce told us it is an old, long-established custom throughout the country, and we are not able to shift it. And we might as well recognise it. It is not an illicit commission; it is simply a trade custom. And it is stupid for us not to recognise it. That is my opinion.

AGREED, that the matter be considered at a later date.

Mr. T. W. WILSON (East London): Mr President and Gentlemen: I will have to leave shortly, but I just wish to mention the edification, pleasure and profit I have received. I have listened very keenly to all that has been said. I am not sorry for those who have missed this Congress: I say it serves them right. I am very disappointed at not meeting some of my brother practitioners from East London; we look up to a certain firm as our leading firm down there, established by a Mr. Cordeaux, a very respected and highly honoured gentleman right through his career. I could not leave without mentioning the great pleasure I have had and my appreciation of the sympathy and the kind attitude of your Johannesburg members.

Mr. RITCHIE FALLON: Mr. President, I want to make a couple of comments on the matters you have just raised. As far as the Municipality is concerned, the Central Council are aware of the fact that,

owing to the Capetown Municipality playing the game, there was a list of no less than forty-five names up for an inquiry to be held against them for signing plans, they not being registered Architects. I think it is an encouraging sign. With regard to the discount, I feel rather strongly on this. Let us take the form of contract as used anyhow in the Transvaal, and I think Natal as well. It says in Clause 28, "Prime Cost: Meaning of"—it explains that and says, "Unless otherwise stated in the Specification or in the Bill of Quantities, the sum paid to the merchant for such goods in the ordinary course of delivery, after deducting trade but not cash discounts, and such sum shall be exclusive of special carriage, the cost of fixing, and contractor's profit." The Cape are using a clause: "The provisional sums mentioned in the Specification for materials to be supplied or for work to be performed by special artists or tradesmen, or for other works or fittings to the building, shall be paid and expended at such times and in such amounts and to and in favour of such persons as the Architect shall direct, and sums so expended shall be payable by the Contractor without discount or deduction, or (without prejudice to any rights to the Contractor existing under the Contract referred to in Clause No. 21) by the Employer to the said artists or tradesmen." That puts you in a rather fortunate position there. Now, I would like to draw the attention of members to the R.I.B.A. latest draft, which is worth considering in many ways. "All items marked 'P.C.' and provisional sums in the Specification or Bill of Quantities, in respect of materials to be supplied, or work to be executed, by merchants, special artists or tradesmen, shall be items received for supply or execution by persons nominated or selected by the Architect and in substitution of the amounts against each of such items the Contractor shall be paid in the manner and at the times set out in Clause 19 the actual sum due to such Sub-Contractor (without deducting any cash discount not exceeding 5 per cent. allowed by or any damage or sum due from such nominated Sub-Contractor to the Contractor) together with, etc., etc.

Now, there are three versions of it that all refer to the Specification. I have brought up a little schedule here, in view of the possibility of having some remarks on the specified schedule. The one I would like to quote here is: "All provisional sums and P.C. prices are strictly nett prime cost f.o.r. Capetown unless otherwise described."

Now, as a matter of principle, Mr. President, I would submit that that is wrong because I have known of cases where merchants have quoted varying prices in order to obtain work, in order to obtain the order.

THE PRESIDENT-IN-CHIEF: That is abusing it.

Mr. RITCHIE FALLON: They are in the habit of not only quoting various prices for the same article, according to who is selecting the article, but they quote different prices according to who the builder happens to be. Now, I submit the cash discounts are perfectly legitimate. If a merchant puts up his proposition, "This is the account, and it is less five, or two fives, provided it is paid within so many days," that is the only discount that an Architect should recognise, and not trade discounts. The principle is wrong. Then again, speaking for a number of men who do quite a lot of

small work : I know a good many of the members of the Cape Institute, for instance, who have complained to me upon this subject and asked me for advice. Their practice is confined almost entirely to small work. When you come down to small work, it means really domestic work. You get the man who has got a limited number of hundreds of pounds, and even half-hundreds of pounds, to spend, and it is the only building proposition he will ever go into. And he fossicks round and gets this, that and the other man ; perhaps one of these merchants is his particular friend, and he goes to the merchant and he says, "These are the contract conditions. What is the lowest price you can give me ?"—as being what one might call "the most favoured nation" treatment. The merchant says, "A is a very nice man. My 'most favoured nation' price is that, but it is nett, provided you pay within thirty days." Maybe B. takes advantage of the conditions of contract. He may be paid by the employer direct, and he pays the merchant. Now, has the builder any ground for redress seeing that you included "Add for profit and fixing" ? It simply makes it a farce. It should be either one thing or the other, as a matter of principle. And in view of the possibility of not only the small building owners going and buying their own material, I think we ought to adhere to the strict reading of the thing. If a man pays within thirty days, well he has earned the cash discount ; otherwise he has not earned a trade discount.

PROFESSOR PEARSE : Mr. President, may I rise on a point of order ? I don't think it is quite fair to members who have come from the Coast towns that items on the Agenda should have to stand down while we are discussing an item that is not on the Agenda.

THE PRESIDENT-IN-CHIEF : It was a suggestion, and the meeting thought this item should be put on the Agenda.

PROFESSOR PEARSE : Then it should be put last on the Agenda.

THE PRESIDENT-IN-CHIEF : I understand there are some members who must be in town at half-past four. We will continue the remaining items after they leave. But they wish, before they leave, that a few votes of thanks should be passed to those who are really entitled to them. I wish from the Chair, in the first place, to ask you to pass a resolution expressing our deep appreciation and thanks to Professor Pearse for the way he has organised and carried out this Congress, from start to finish. We are not only indebted to Professor Pearse for his contributions to the Agenda. Professor Pearse was appointed convener of a Committee of four : Mr. Fleming, Mr. Burton, myself and Professor Pearse. We appointed him convenor, and all that Mr. Fleming, Mr. Burton and I have had to do has been to say, "Yes, thank you very much." He has done everything by himself ; everything he has presented to us has been so well done that all we have had to say has been, "Agreed. Thank you very much," because we could not improve upon it. As I say, he has arranged the whole Congress from start to finish, and it has been a very big job ; and the Banquet in itself proved, I think, that everything was absolutely ideal. I haven't heard an expression of opinion from anybody regarding this Conference which was not an expression of appreciation. I am sorry—and here I must agree

with Mr. Fallon—the only "fly in the ointment" has been the failure of the Transvaal members to come up to the scratch in attending. That is indeed regrettable, but it is no fault of Professor Pearse. I expect some of you would like also to add a few words of appreciation.

Mr. RITCHIE FALLON : I submit that words fail us. We can simply show our appreciation by passing a vote of thanks.

PROFESSOR PEARSE : Mr. President, as Mr. Fallon has said, "words fail me." I do not think there has been anything extraordinary in what I have done. It has been a very great pleasure, and I most sincerely thank you, Mr. President, for the kind expressions you used just now. You can quite understand that in my position as a teacher, it is a great pleasure to be able to meet a body of practising men and hear their views on subjects one is doing one's best to inculcate into the minds of future Architects ; and as the different expressions of opinion that have been given are intimately connected with that teaching, it has been a real pleasure to help in some way. It just happened that this Congress was arranged to take place immediately after our examinations, and I was able to get in touch with various Architects here and make arrangements for this Congress. I would really like to thank Mr. Lewis, our Registrar, for the excellent way in which he has co-operated. And, perhaps I should have said this first, I thank you, Mr. President, for the delightful way you have agreed to any suggestion that I have made in connection with this Congress. I thank you most sincerely.

Mr. F. O. EATON (Port Elizabeth) : Mr. President-in-Chief, I would like to take advantage of this opportunity of expressing, on behalf of this Congress, as a member from right outside, our keen appreciation of the able manner in which you have carried out your duties during this Congress. It may have occurred to you, and possibly many of the Union Registration Executive Committee and the Central Council, that we outside are not appreciating the enormous amount of work that you have put in. Well, we do, and we in Port Elizabeth particularly have been with you all the way. We have expressed it in a small way by always sending our cheque along promptly, without getting an urgent wire from the Central Council. Not only do we appreciate the past work before the Act, but we do appreciate the enormous amount of hard work you have put in since the Act came into force. I am sure one and all of us were proud of our President-in-Chief at the Banquet ; we were indeed proud to have such an able President putting forward our views. I want to be brief, so I won't detain you very long ; there are more able speakers, I am sure, who wish to say something also. But I would like to move "that this Congress places on record its sincere appreciation of the able way in which our President-in-Chief has carried out his duties during this Congress, and wishes to assure him of our continued confidence."

Mr. W. F. WALDECK (Bloemfontein) : Mr. President-in-Chief and Gentlemen : I very heartily support Mr. Eaton's remarks as I am the only representative here from the Free State. At the same time I have been asked to convey to this Congress the excuses, shall

I say, of all other Free State members. They would have liked to have been up here, but unfortunately they have such a building boom at Bloemfontein that these men couldn't get away. I shall on my return naturally, on meeting the Institute members, mention the able way and the instructive way, shall I say, that this Congress has been handled. You may be sure, whenever another Congress happens to come along, you will find there won't be one, but I am almost sure, every one of the Free State members present.

THE PRESIDENT-IN-CHIEF: Gentlemen, I am very grateful to you for your expressions of appreciation. I have been only too happy to do anything I could to make this Congress a success; and I think I can safely say that the Congress has been a great success. It is really the first time in the history of architecture in South Africa that we have had such a representative body joining together and discussing matters of interest affecting all Architects and Quantity Surveyors throughout the Union. I may be perhaps a little bit more fortunate than others, in that I have been here right from the early stages and have seen the progress of events from the very start. But it has been most interesting, and it has given me a great deal of pleasure, to assist the profession generally, from start to finish. I feel that we have achieved something. At one time—we were not exactly at logger-heads with each other, but there was never that unanimity in the profession that there should have been, and which we have to-day. And congresses of this kind are the very best thing to bring us all into line, and help us to be unanimous in our views and aims. If a thing is sound in principle, we must discuss it with each other until we have established the fact that it is sound in principle, and then we must put it into operation with all our energy. We are particularly fortunate in our position regarding the coming generation. That has been a trouble with us all along in connection with the architectural profession in South Africa. We have been struggling with classes at different centres, mediocre classes, with mediocre teachers. At the present moment, as you know, we have Schools of Architecture firmly established in Capetown and Witwatersrand Universities, but we look forward to the day when the Free State and Natal will have their centres for architectural training also. We must provide for the future generation, and we must establish systems of education that will enable them to come forward in the future as perfectly and thoroughly qualified practitioners. It is not fair for us to protect ourselves, and pass Acts protecting the profession, and demanding that we shall be a closed profession, if we do not make full provision for the students who are to be the practitioners of the future. And I am sure it is very gratifying, and that it has pleased you more than anything else at this Congress, to observe the satisfactory way in which provision has been made at this University for the students of to-day. I don't think there is anything else to add. It has given me great pleasure to do anything I could in the interests of the profession, and I shall continue in the future with the same interest, as long as you have confidence in me.

Mr. F. WILLIAMSON: Mr. President, I would like to propose a very sincere vote of thanks to our visiting delegates. I am sure we all appreciate their unselfishness in coming up to Johannesburg, and the keen in-

terest they have shown in the profession and in the workings of the Central Council by their attendance at this Congress. I feel that we in the Transvaal, individually at all events, very sincerely appreciate that. I would like particularly to refer to the attendance also of our worthy Vice-President-in-Chief, our chief visiting delegate, and to say how much we appreciate his excellent work on the Central Council. While on this subject I would like, as President of the Transvaal Provincial Institute, to express my personal disappointment at the apparent lack of interest shown by the Transvaal members, judging by their meagre attendance at this Congress. I personally feel this very keenly and would like to express my extreme disappointment in that more Transvaal members have not found it convenient to attend this Congress. Mr. President, I beg to propose a very sincere and hearty vote of thanks to our visiting delegates.

PROFESSOR PEARSE: I would like to second that, very sincerely. I think it is splendid the way they have come up here and attended our meetings so regularly and sympathetically and taken such a large part in our discussions. Our sincere hope is that they will go back to their various provinces and sow the good seeds which I hope they have received here.

THE PRESIDENT-IN-CHIEF: Gentlemen, I would like to propose a vote of thanks to our Registrar. I am sure you would be amazed at the amount of work he has had to do, and has done, in connection with this Congress alone. I know personally that he has been working day, and working night, Saturdays and Sundays, and at times he felt it was hopeless to carry on, the amount of work was so prodigious. But he has done it, and without his assistance we would have been in very great difficulties. In addition to that, it is only right to add that he has been with us only a few months, and he has had to pick up and organise a tremendous lot of work in connection with the Central Council. I can assure you he has done very well in picking up the threads so capably and keeping the thing going, and we now feel very confident that things will go along smoothly, thanks to Mr. Lewis.

Mr. A. G. CROSS (Durban): Mr. President, I should like, as a visitor from Natal, to thank you for the hospitality that we have all received since we have been up here, and to express our appreciation of the feeling of camaraderie that has been inculcated throughout this Congress. It is a thing that has been wanted amongst Architects for many years, and I am very glad to see it started here.

THE PRESIDENT-IN-CHIEF: You have not expressed any opinion, gentlemen, regarding the next Congress. I don't know whether you would wish to leave that over to the Central Council. I did suggest at the beginning of the Conference that you might adopt the idea of having this annually, and at the same time it has been suggested that that might be too often, and every three years not enough, so perhaps we might strike the happy medium and have it every two years. I don't think it is necessary to decide that at the present moment, but if you have any opinions on the matter, I shall be pleased to convey them to the Central Council.

Mr. E. M. POWERS: You could make it two-and-a-half years and come down to Durban.

Mr. F. O. EATON: I think, if the Central Council discusses it, they should consider the possibility of Port Elizabeth. We have no special season; our season is good all the year round, so you can come at any time you like. Why I mention Port Elizabeth is because a place such as Port Elizabeth does not have much opportunity of the stimulus that a Congress of this kind would give. The Builders had an uplift when they had their Congress in Port Elizabeth, and it did an enormous amount of good. I think it would also help the architectural profession very considerably down in Port Elizabeth if in the near future we could get a turn.

Mr. W. F. WALDECK: What about Bloemfontein, the central city of the Union?

PROFESSOR PEARSE: Leave it to the Central Council.

Mr. RITCHIE FALLON: My suggestion is that it should be left to the Central Council to decide the venue of the next Congress, on representations from the Provincial Institutes. Now, I feel, Mr President and Gentlemen, that although we have a limit of three years in the Act, in the initial stages of our Institute it may be advisable to hold another Congress next year, or the year after next. And I think that might well go to the Central Council as a recommendation from the various Provincial Institutes and the Chapter.

AGREED.

Mr. J. PINKER: May I express the hope that it will be in less than three years. Some of us who were born rather early may not get too many of these luxuries!

MUNICIPAL REGULATIONS.

By R. H. JONES.

Mr. President and Gentlemen: I can only refer to the regulations pertaining at Capetown, and think something should be done by us, as an Institute to bring to bear a more reasonable attitude on the part of officials who deal with the passing of plans.

Lord Oxford has said, "Some can only think while speaking, some only when writing, very few within themselves, and the majority not at all."

It has been admitted to me that Officials and Inspectors are not permitted to exercise common sense, they go in fear of giving any elasticity to the regulations and will not permit the most apparent sensible action, that the need of the moment creates, even with the knowledge that it will be in order.

To give a small illustration. A client of mine was served with a notice to immediately remove an outside staircase leading to a first floor; structurally it was not dangerous as regards collapsing, it was dilapidated, balusters missing, etc., and might have been dangerous to a tipsy person.

The space occupied by the staircase was to be utilised by the continuation of some outbuildings, necessitating some minor alterations.

I suggested to the Inspector that before the stairs were pulled down, the men could work on the landing and make the alteration. The Inspector would not allow it; nothing must be done till the plans were passed so scaffolding had to be used and work delayed over such a trivial matter.

Another illustration. A council sewer ran through a derelict piece of land within twelve feet of my clients' boundary, Inspection Chamber, that had to be con-

nected. Of course, the land belonged to some one, the Estate was so large the Trustees never troubled about their limits or that the sewer was there. We were required to get the Trustees' permission to join up.

It led to committee meetings, sub-committee meetings, meeting committee men on the site, questions of all sorts raised, months of time wasted. Wiseacres raising improbable troubles that could never occur, all over a twelve feet length of pipe underground, which I offered to set in concrete.

An intelligent view would have been "Do it," no one would have been any the wiser. We have enough troubles and can afford to hand some over to the next generation.

In dealing with Houses that require additional accommodation, the regulation rear space, the full width of the main building is also applied to detached extra bedrooms, that could be built at the rear to the boundary of the rear land, still leaving the regulation depth for the main building. The boundary is often a blank wall or open space, yet you are not allowed to build up to it on account of this rear space "fetish." It does not seem to occur to the officials that any room in a house with one outer wall has no open rear space and the occupiers are still healthy.

Take the regulation that the window space must be one-tenth of the floor area. In a sunny room this is too much, also where a skylight only can be used, is also far too much, for a skylight is a window under the Act. The sombre restful lighting often noticed in old Dutch houses is due to the size and placing of the windows, without restrictions.

The Council require you to get permits from your neighbours if you put up a temporary wood and iron garage, which is quite reasonable. But why should a man who adds a storey to his building, requires to get his neighbours' permission to put in a window that will overlook his roof, which may not be built up for years? I was told that the Council did not allow a man to take risks. Are they not exceeding their authority, when there is nothing in the regulations against it? All enterprise is taking risks.

Take the regulation that every habitable room must have a minimum height of ten feet. No allowance is made for the conversion of old buildings to habitable dwellings and if the height is only a few inches less, the ceiling and roof is required to be raised or the floor lowered at unnecessary expense; often preventing an owner making improvements or extra dwelling of which we are so much in need. In adding rooms, structural circumstances may only enable you to strike an average of ten feet in height through a series of rooms, in which case the room at the lowest end has not an average of ten feet to itself.

Take the height of nine feet six inches in a roof to be half its area, this cannot always be complied with. There was a case of a bedroom in a roof being about eight feet six inches high, the size was about twenty feet by twenty feet, with dormer casement windows each side. Tile roof, plenty of space and ventilation, beautifully furnished, yet the people were served with a notice not to use it as a bedroom. People sleep in bunks at sea, and in railway carriages with only three feet headroom. As to servants, thousands sleep in rooms seven feet high and under. I have known chicken houses converted into bedrooms for servants, and in one case the dandy native boy slept under a corrugated iron sheet four feet from the ground, on straw, at the rear of a mansion. Servants that sleep under stairs and coal sheds are quite numerous. I am, of course, not advocating this, but we do not hear of sickness occasioned thereby.

My contention is that an out-building in a yard is limited to eight feet high. When you have the space and want to erect a servants' room or kitchen, the regulation insists upon ten feet ceiling; dealing with this height it is often a nuisance in relation to the main house or other structure, and prevents utilising waste spaces that could be used to advantage.

We have a regulation No. 817 that the class of architecture shall be subject to the approval of the Corporation, who are entitled to disapprove if not suitable to its environment.

I believe that chiefs of architectural departments wait on the committee in an advisory capacity. They do not appear to exercise their functions much over this regulation, judging by some of the buildings that have been erected in St. George's Street, our main business street.

Referring to the New Post Office, Annexe to the G.P.O., which has been decried due to its extreme ugliness. A Council man stated that Government buildings were not subject to the approval of the Corporation; as a matter of fact the plans were officially passed.

Considering that the Corporation sold a portion of the Parade to the Government, it would have been easy to make it a condition of the sale that the Annexe must be designed in harmony with the architecture of the main building.

A series of pin pricks seem to be the order of the day, in the passing of plans, small matters that could be adjusted by red ink remarks on the plan, that the plan is approved subject to such remarks, would save a lot of irritation and waste of time in correspondence; besides they treat a returned plan as first put in, as regards the regulation time of approval.

I will close with another point that requires adjusting, not only as regards our Corporation but others all over the country. It is in regard to cloth tracing that the public body desires to retain. This regulation was copied and made from English Corporation regulations and was necessary before photo printing was invented. In the progress we have made to-day, the tracing becomes the Architect's negative and is more valuable than the original. I am, of course, not referring to large works. I have found the Corporation obliging in returning my tracings when I have desired it. But treating it as an approved plan, they will plaster a lot of notices on the back, necessitating wetting it off to damage the tracing. It is a waste of cloth to provide a space, when these notices could be printed all on one sheet and attached to the schedules. One does not want to make prints until the work is passed. I do not colour tracings of new work, only alterations which, of course, I do not trouble to ask to be returned.

I desire to point out, that there is no index to the regulations, which is a great nuisance when in a hurry. "Outhouse" is not defined. I suggest that it should be defined as: Lavatory, Bathroom, Kitchen, Servants' Room, Box Room or Fuel Store, as so many existing houses require this extra accommodation that have not been placed suitably for economical sewerage and growing needs.

The difficulty of all regulations and laws is that the minimum becomes a set rule and no deviation allowed for special circumstances. The argument is always put forward, that if we make an exception, others argue on the exception to demand a similar favour, when the circumstances are different and need not be allowed.

Firmness is a necessary qualification in an official, but without the licence to use common sense it may be taken as autocratic stupidity by the public. That is what is resented.

This paper is only a nucleus which I trust will lead to the overhauling of our Municipal Regulations.

Mr. Fallon has suggested to me that it would be as well for the Council to endeavour to get a standardization of Regulations throughout the Union.

Discussion on Mr. Jones' Paper.

THE PRESIDENT-IN-CHIEF: Gentlemen, Mr. Jones has raised some very interesting points in his paper. At the outset I may say what the Central

Council has actually done in connection with by-laws. We have approached the Institute of Municipal and County Engineers, which is a body comprised of Town Engineers throughout the whole country, and we have ascertained that the Minister has power to enforce regulations in an Act for the consolidation of these building by-laws. We have approached this Institution and asked them to arrange with us a deputation to wait on the Minister, with a view to the Minister drafting a Bill enforcing all the Municipalities to consolidate their various building by-laws. That will mean that they will have to be discussed from A to Z, and many of the matters that Mr. Jones has raised, will undoubtedly come up at such a conference or congress, whatever may be arranged, with a view to making these by-laws uniform. It is extraordinary that in a country like South Africa there are hardly two towns or cities that have the same by-laws, where the conditions are identical. There is no reason for it. Take, for instance the window area, ten per cent. of the floor space: if that is the best and right amount, let the whole of the Union adopt it. If it should be different in some parts of the country to the others, let that point be decided and make it uniform. And in the instances Mr. Jones gives: let the whole thing be inquired into and made uniform. All the matters he has mentioned can be thrashed out by this conference to which I have referred, and I hope the various by-laws will be consolidated and made stable and uniform, as far as general principles are concerned, with perhaps variations for certain local conditions. Mr. Jones has a grievance against the power of the Building Inspector, but I put it to Mr. Jones, if the Building Inspector had discretionary power, wouldn't it be fatal, much more fatal than making him simply carry out the by-laws framed by people who have a great deal more intelligence than the Building Inspector? If you were to give the Building Inspector a discretionary power, I am afraid that would not be very helpful. That is just one point. I certainly think Mr. Jones has pointed out the inconsistency of the building by-laws and the necessity for their consolidation throughout the country.

Mr. WILD (Johannesburg): Mr. President, talking about the inconsistency of the by-laws reminds me that a few weeks back I happened to be in Main Street. I saw some municipal workmen busy there, putting up a verandah; a tram-shed, it appeared to me. I said, "Shouldn't you keep the pillars back from the kerb?" They said, "This is the plan we got from the Engineer's office." When I got near the Town Hall, I came across Mr. Hill. I said, "If I put up a verandah, how far do I keep the columns back from the kerb?" He said, "You must keep back at least four inches." "Well," I said, "you people are putting a tram shed down in Main Street right on the kerb stone." "Oh, the Muni-

cipality can do anything, you know." That is the answer I got from the Chief Building Inspector; he said the Municipality can do anything on their own property. Two blocks further up the street there was a similar job going on, but they had to keep six inches back from the kerb stone. There is the inconsistency with the Municipality. And in the afternoon I had occasion to go to the Building Inspector's office: I came across Mr. Dowsett. "Oh," I said, "supposing I am putting up a verandah, how far do I keep the columns from the kerb stone?" He said, "Mr. Hill told me of that this morning. But then we have no by-law dealing with that." They have no by-law, yet they insist on it. On another occasion the Municipality had been building some native compounds. This time I met Mr. Dowsett: I said, "Mr. Dowsett, if I put up a water spout on a footpath, I have to let the water run into the street, haven't I?" He said, "Yes." I said, "The Council have got twenty-one down pipes and there is no provision for running the water into the street. They all empty on to the footpath." This is not the builder's fault; this is the Municipal Engineer's fault, for down spouts left on the footpath and emptying on to the footpath without any provision whatever. There again is the inconsistency with municipal by-laws. Then again they have an idea that they are the only authority to interpret the by-laws. At Salisbury a few weeks back they were told that the municipal officials must not think that they were the only interpreters of the by-laws, but the public had a perfect right to put their interpretation on the by-laws, as well as the Municipality.

Mr. R. H. JONES: The only point raised is in regard to giving licence to the Building Inspectors. I know Building Inspectors who do us a certain amount of licence. But lately there have been so many things that give expense to the Council, that it has "put the wind up" the whole lot.

THE PRESIDENT-IN-CHIEF: I might add in reply to Mr. Jones, that in Johannesburg we have a committee which we call the Building By-Laws Committee, and this committee has done a great deal of good in suggesting amendments to the building by-laws and making suggestions to the officials in the Municipality regarding improvements in the by-laws. With Mr. Jones' consent, I think this paper would be very useful to them, and we might hand it over to this Building By-Laws Committee, who might in its turn advise the other provinces of such amendments and suggestions as it makes to the by-laws. But, of course, if our bigger scheme is carried out, all these things will be thrashed out by one body representing the whole of South Africa, and we will then get a consolidated set of by-laws that would be useful to everybody throughout the Union.

THE JOURNAL.

THE PRESIDENT-IN-CHIEF: The position at present, gentlemen, in regard to the Journal is that we have obtained the opinion and consent of the respective Institutes and the Chapter, that a Journal should be issued for the whole of South Africa. Now, I think, as I said once before, this will entirely depend upon the assistance we receive from the respective provinces. We have a Journal in the Transvaal, a quarterly Journal. I don't think I am speaking incorrectly if I say that it is most difficult to get members to subscribe articles and contributions for that Journal, even every three months.

Mr. HAROLD PORTER: They will have enough matter to last for a year out of this Conference!

THE PRESIDENT-IN-CHIEF: This will help the Journal a good deal. But everybody must take a live interest in the Journal.

Mr. PINKER: What are the fees? I have never known that there was anything to pay.

THE PRESIDENT-IN-CHIEF: If you are a member of the Institute, there is nothing to pay.

Mr. PINKER: Well, I am a member.

THE PRESIDENT-IN-CHIEF: I am not speaking about monetary contributions: I am speaking of literary contributions. The difficulty with a quarterly Journal is this: one reads an article and would like to comment on it. By the time that reply has been written and published, three months later, the matter has been forgotten; and if that reply has been written and published and another reply is required, it would take another three months. In the case of a monthly Journal that difficulty, of course, would not exist. But I must inform you, gentlemen, quite frankly that our experience of Journals for years and years past has been that members do not give it the support it should have. If the different provinces will promise us that they will send up contributions monthly regarding affairs of interest in their particular part of the country, whether it takes the form of a resumé or article, we can guarantee to produce a monthly Journal. But if you are going to fail us in that respect, well, then, at the outset, let me tell you without hesitation that it is no use running a monthly Journal. We want to run a monthly Union Journal, of interest to the whole Union, and if the various Provincial Institutes will take upon themselves the responsibility of contributing to the Journal a summary of affairs of interest in each province, each month, we can get it going.

Mr. W. F. WALDECK: Mr President, for my part, at least for the Free State's part, I can give you my assurance that I will take it upon myself to support this Journal and get contributions. I feel that a

quarterly Journal is not a Journal that is going to pay at all. Unless we have a monthly Journal, I am afraid it will not be of value. And also in the Journal I think there should be some space for photographs; I have seen at the exhibition here some wonderful pieces of work which could easily be put in the Journal. I am sure they will interest everybody. There is another point I would like to raise: I heard the remark passed that this Journal was given out to the members of the Institute: is that so?

THE PRESIDENT-IN-CHIEF: Yes.

Mr. WALDECK: Is that only the Transvaal Institute?

THE PRESIDENT-IN-CHIEF: It is a Transvaal Journal. But we want that Transvaal Journal to be a South African Journal. But Mr. Fallon reminds me that the Central Council has resolved that this particular Journal, containing the verbatim report of the deliberations of this Congress, is to be delivered to every member throughout South Africa. The Central Council is bearing the expense of sending this particular issue of the Journal to every member on the Register and Roll.

Mr. ALLEN WILSON: May I remind the delegates here that it is necessary, from a financial point of view, being Chairman of the Finance Committee, to get advertisements. We must get advertisements from all the other provinces. We can do a lot here, and we should do a lot more than we do now, if we had a monthly Journal. I feel we can help the merchants considerably with that Journal. I quite agree with our friend from Bloemfontein that a quarterly Journal is not of very great value; but with a monthly Journal, we would be supported by the merchants considerably.

Mr. J. PINKER: Mr. President, I think every full member of the Institute should put himself out to secure one trade advertisement, something that they particularly deal with. I have in my mind a particular company with whom I have an appointment on Monday, to give an opinion: I may ask them to advertise in our Journal.

THE PRESIDENT-IN-CHIEF: There is the business side of it, gentlemen, that you must take into consideration as well. As Mr. Wilson pointed out, a Journal which is being distributed throughout the whole of South Africa, monthly, instead of our present Transvaal quarterly Journal, would be a much bigger inducement to advertisers; and in addition to that, we should get some merchants who have not representatives all over South Africa, to advertise. At the present moment our Journal is run by an Editor and a Business Manager; the Business Manager runs the business part of it, and he receives a commission on all the advertisements. Our Journal does not exactly

show a large profit, but it supports itself; as a matter of fact, it does show a profit. There is no question about it, the inducement to advertisers in a monthly Journal would be considerably greater than in a quarterly Journal, and still more so if the Journal goes throughout the whole of South Africa. We are quite confident that we could make this Journal a payable concern, but we are not confident that we will get the literary contributions to help us to make it popular, because, as I say, a monthly Journal will need three times the amount of literary contributions that we are getting at present. But if the Provincial Institutes come up to the scratch, there is not the slightest doubt that we can run a monthly Journal successfully.

Mr. ALLEN WILSON: May I add, I think it is the intention of the Journal Committee to get somebody to take up the position of Editor, or Assistant Editor, for the different Provincial Institutes. We might have one at Durban, Port Elizabeth, Bloemfontein and one at the Cape, who will collect all this information and send it up to us. That is the idea. We may be able to afford to pay somebody to do it, if it goes on all right.

Mr. R. H. JONES: I should like to ask, is the "Architect, Builder and Engineer" of the Cape Province, the official Journal of this Institute?

A MEMBER: No, it is a proprietary magazine.

Mr. RITCHIE FALLON: It is a monthly Journal; it is a proprietary Journal, but for many years it has been the official organ of the Cape Institute, with the distinct proviso that the Cape Institute does not control its policy. They are pleased to publish anything the Cape Institute likes to send along, but it is a private concern.

THE PRESIDENT-IN-CHIEF: Gentlemen, I think that this is the end of the programme in Johannesburg. I hope when I can get sufficient time to spare, to take a trip round South Africa and visit the various centres in which Architects practise, with a view to addressing them, letting them know what the Central Council is doing, and to lay before them the business that we are handling, and possibly to be of assistance to them. If the members from the respective Provinces could let me know if it were possible to call a meeting of the members of their Institutes at some future date, I hope to make a tour through South Africa, and wherever they can get sufficient members together, I shall be delighted to meet them all.

MEMBERS: An excellent idea!

FIFTH DAY, FRIDAY, 7th DECEMBER, 1928.

VISIT TO PRETORIA.



UNION BUILDINGS, PRETORIA.

Photo by Alan Yates.

On Friday, December 7th, a large number of the delegates visited Pretoria, leaving Johannesburg at 7.45 a.m. Many of the leading Master Builders of Johannesburg kindly offered transport and a fleet of comfortable cars left from the New Law Courts, Von Brandis Square, Johannesburg.

The weather was perfect, brilliant sunshine and a cool northerly breeze. The tree lined road, with the exception of a few unmade portions, was in perfect condition and the whole party, after its four days of strenuous discussion, settled down to enjoy their day's outing.

The first stop was at the Aerodrome, Zwartkopjes, where the party was met by the energetic Pretoria Committee who had organised the day's proceedings and introduced the visitors to Lt.-Col. K. R. van der Spuy, M.C.

A fleet of planes was in readiness to take us aloft and after the usual formalities of signing indemnity forms, nonchalantly referred to as "death warrants,"

the pilots escorted their passengers to the machines. Flying kit was donned, parachutes strapped on and in no time the visitors were viewing Pretoria from the air and thoroughly revelling in their novel experience. It was not possible, however, for all those who had keenly looked forward to this part of the programme, to enjoy it as the party were due at the Union Buildings at 10 o'clock. Here they were received by the Minister of Public Works, the Hon. H. W. Sampson, the Secretary, Mr. O. W. Staten, and the Staff of the Public Works Department.

THE MINISTER in welcoming the delegates said :

Gentlemen, speaking on behalf of the Union Government, we welcome you here on your visit to Pretoria. I understand that your programme is already mapped out and that you have not got very much time at your disposal to listen to a speech; that is a good reason for my not making a very long one. I am sure those of you who have not been here before, are, like most of the public, very agreeably surprised at the magnificence of these Union Buildings. At the time

that they were built there was a great deal of carping criticism about their expense, and that sort of thing, but I think you will agree with me, and most of the public who have been here do agree, that this is the finest asset and the best undertaking which the Government have ever made. I am quite sure, as far as every visitor here is concerned, they feel proud of the building, very very proud indeed, and as far as the Civil Service who are housed under its roof are concerned, I am quite sure they must feel that they work under very congenial circumstances indeed, when compared with some of the old public buildings that were used in South Africa thirty to forty years ago. We have already outgrown this building; some of the Government Departments cannot be housed here. I suppose in a little while we shall just have to take time by the forelock, use a little foresight, and see how we can add to these buildings, to provide for all the Government Departments that require to be housed. You are better judges of this building than I am. You will more easily see its defects; I see its beauty. You will perhaps go away with a good deal of criticism of this building. But to show you how popular it is, I want to draw your attention to this, that even the swallows nest in its roof. I will not take up any more of your time, but on behalf of the Government and the members of the Public Works Department, I wish you a very pleasant function. They have asked me to present to you, Mr. President, a memento of the visit of the Architects to this building (handing over a framed photograph of the Amphitheatre of the Union Buildings) and to ask that you will try to find a place for it in your Institute, so that you will look back with pleasure on your visit to Pretoria. On behalf of the Government, I wish this delegation every success and that much pleasure and profit may result from your work.

In conclusion the Minister presented the President-in-Chief with a fine enlarged photograph of the Amphitheatre of the Union Buildings, on behalf of the Staff of the Public Works Department.

THE PRESIDENT-IN-CHIEF in accepting the photograph replied as follows:

Mr. Sampson. Ladies and Gentlemen: on behalf of the Institute of South African Architects and Quantity Surveyors, and the delegates who are here this morning from all over South Africa, we thank you very much indeed, Sir, for the kind welcome you have given us. We appreciate very much the invitation you have given us to look over this building, and we feel sure that not a single person here, when he or she leaves this building, will fail to appreciate every part of it from beginning to end. We feel very proud that you have such an architectural asset, as you said, in Pretoria, because it was designed by one of our brother practitioners here, a man whom we all highly respect, and we are very pleased to know that he has not only erected this building but has continued his work in carrying out still better buildings in Great Britain. I might say, Sir, that I was not deputed to reply; someone else was appointed to do so, but at the last moment Mr. Moore has let me down. I am sure we will all very much appreciate this photograph; it is a particularly good reproduction of the building, and we shall certainly find a prominent place for it on our walls. Thank you very much.

Mr. T. MOORE, the Chairman of the Pretoria Committee then advised the gathering of the day's programme.

The visitors, whose numbers had been considerably increased by Pretoria practitioners and their staffs then adjourned to the Restaurant for tea.

After refreshing themselves they were conducted over the Buildings by members of the P.W.D. Staff and spent an interesting hour in viewing the fine public reception rooms and offices as well as the well equipped Architectural Department where they were shown many interesting drawings of work in progress.

From the Union Buildings cars took us to Government House, with its magnificent gardens and superb views. Here we were conducted over the building, another of Sir Herbert Baker's fine achievements.

The rest of the morning was spent in driving round Pretoria's beautiful suburbs and viewing such fine institutions as the Transvaal University College, where a few of us were hospitably welcomed by the Rector, Dr. du Toit. The guests and their hosts, to the number of about one hundred and eighty, assembled at Polley's Hotel, for luncheon, where the chair was taken by Mr. T. Moore.

Mr. T. MOORE: In proposing the toast of "The King" I know you will all join with me in wishing His Majesty a speedy recovery, and in expressing our deep sympathy to the Queen and the Members of the Royal Family.

Mr. MOORE proposed the toast of "The Governor General."

Mr. MOORE: Ladies and Gentlemen; before asking Mr. de Zwaan to propose the toast of "Our Guests," I should like to make a few remarks with regard to the Chapter of Quantity Surveyors. In 1904 was formed the Transvaal Association of Quantity Surveyors. Mr. Harry Bell-John, in 1904, called a meeting of the Quantity Surveyors in the Transvaal, and from that meeting was formed the Association of Transvaal Quantity Surveyors. That Association was incorporated by the South African Institute of Quantity Surveyors. That Association was incorporated by the South African Institute of Quantity Surveyors in 1908, or over twenty years ago, and this was, I believe, the first Union Association of professional men in South Africa. In 1927 the Architects' and Quantity Surveyors' Act was passed, and the South African Institute of Quantity Surveyors was absorbed in the Chapter of South African Surveyors, which is the only statutory body of Quantity Surveyors in the whole world. The Public Works Department of the Transvaal were the first body in this country to recognise the value and the uses of Quantity Surveyors. In 1902 a Quantity Surveyors' branch was formed in the P.W.D. of the Transvaal, of which I was the Chief. Other members of the branch were Capt. Harry Bell-John, now the Chief Engineer of the Department; my old friend, the late Mr. H. A. Adams, who was Chief Quantity Surveyor to the Transvaal, and later on to the Union P.W.D.; Col. W. E. Puntis, the present Chief Quantity Surveyor of the Department; Messrs. Warne and

Springthorpe, the assistant Quantity Surveyors in the Department; and Capt. Allan Stratton, M.C., the District Engineer of the P.W.D., in Johannesburg. Most of the successful Quantity Surveyors in the Union have passed through the Public Works Department, and I am telling you this, Sir, because I think it must be of very great interest to you. I can instance Messrs. Hickman and Farrow, in Johannesburg; Mr. Waters and Mr. Cowling, in Pretoria; Mr. Rhodes Harrison, in Bloemfontein; Messrs. Priestley, Thompson and Langton, in Durban; and Mr. Shepherd, Capetown. All these Quantity Surveyors have loyally supported their Institute, and now they loyally support the Chapter. From the foregoing you will see, Sir, that your Department has had considerable influence on the practice of Quantity Surveyors in the Union. May we hope at some future time you will see your way to promote a Bill in Parliament to protect the practice as well as the title of Architect and Quantity Surveyor? We thank you, Sir, in anticipation. I will now ask Mr. de Zwaan to propose the toast of "Our Guests," in the name of the Institute of South African Architects and the Chapter of South African Quantity Surveyors, Mr. de Zwaan being the senior practising Architect in Pretoria.

Mr. A. De ZWAAN: Ladies and Gentlemen: My particular purpose is to say just a few words on behalf of the Pretoria practising Architects to welcome the delegates and the guests who have been good enough to come here, to find a few hours of relaxation and to talk over light refreshment after a very arduous week, as far as I understand, in Johannesburg. The delegates have been listening to many learned speeches and have been dealing with many very important matters, so we hope they will find it a pleasant relief to come to our humble village. When there used to be any function on in the Transvaal, Pretoria used to take a prominent place, in the old days, and even nowadays it is not entirely forgotten. And for that reason I am particularly pleased that you have chosen Pretoria as the sort of epilogue in the play; the drama is now over, and now we are coming here for the apotheosis. As a last impression—and it is often said to be the best—I hope the impression gained here by the various visitors will impel them in the future to have their Congress in Pretoria. I am a very old citizen of Pretoria, and I can assure you that Pretoria has always taken a particular pride in its sense of hospitality. It cannot of course vie with a great city like Johannesburg, but still, don't shoot at the man at the piano who is doing his best—and we are doing our best now. I just want to say a few words on how gratified we are to-day to see our Minister of Public Works here. The Minister has shown that he is taking a very keen, lively interest in our affairs, and has been good enough to give us some advice. And I hope in future on any questions or points where we want advice, for the further development of the Institute, our Minister will always hold a very sympathetic view, and I am sure he will always be a guiding light. Ladies and gentlemen, I don't want to interfere too much with your enjoyment; you want to smoke and perhaps have a little drink and talk. I once more say, we are particularly gratified at seeing you all here, and I hope in the afternoon the party will be a very pleasant one.

THE HON. H. W. SAMPSON: Mr. Moore, Mr. Mayor, Mr. de Zwaan, Ladies and Gentlemen: I am quite sure if all your guests feel as grateful to you as I do myself, for your hospitality and kindness here to-day, this will live in our memory as a very pleasant and happy gathering. I know that you have got a very busy programme to fulfil, so I am not going to take up very much of your time. But I would say this, that I think this gathering to-day of members of a newly established Institute, depicts a very important epoch in the growth of the South African nation. Because of lack of transport and of communication for many years we lived in different parts of this country without much inter-communication or opportunity of forming associations; but of later years there has been a big development amongst all interested in the country, of people combining themselves into associations and organisations, which can only be for the good of the country. After all, we are in a new country, most of us, a comparatively new country faced with tremendous problems, and if we proceed as individuals to try to solve those problems and difficulties, we shan't get very far ahead. But when we find a development of people who are getting together, discussing their various interests and requirements, and speaking with one voice on behalf of their interests and requirements, there seems to be some hope of formulating policies in South Africa for the future, which those who follow us will benefit by. I am very proud to know that I represent a Department, the many officials of which have taken a great interest, and a foremost part, in the formation of this Chapter. I can assure you, from my standpoint, that that will engender a greater confidence in those officials, to know that they have got their own trade union. Personally I have always felt inclined to accept the word of a trade unionist before I would the word of a man who is outside his trade union. I have confidence in them. I know when they come to me and they state things that you require, and things of that sort, that they are not doing so with a view to misleading me, but they are really doing so in the interests of the State as the best thing that could be done. I am quite sure of that. I again say, Sir, I was glad to hear from you that they have done so much for you and I hope they will continue to do as much as they possibly can. The other night, of course, I said a little too much. And I was fully repaid the next morning by seeing the placards all round Johannesburg stating that the Minister was rebuked. I am very sorry that what I intended on that occasion, perhaps in a joking way, was taken very very seriously indeed. And I want to put you at rest, that although I was joking with you on that occasion, and although the subject I spoke about rather marred a very beneficial programme from a public standpoint, I did not want it to appear that I had got any closed opinions upon the matter. I want to say even now, I am still prepared to discuss the matter with you on a fair and equitable basis. I think you took me just a little bit too seriously: you took me too much as the Minister, and not enough as "H.W.S." I am sure that had you been printers, you would never have taken me so seriously as that. Now, since I mention that, I should just like to refer to the next day. Of course, the newspaper reports are not correct. This is where I get one of my own back. But it did sort of lead me to believe that on the following day there had been a sort of acrimonious discussion, and although I do not know how great were the differences

of opinion on the subjects that you discussed, I noticed in every instance after the words "a long and acrimonious discussion," it wound up that "the motion was carried unanimously." Well, I praise you, or those who had charge of these subjects, for your powers of conversion, that, after all that talk I read in the newspaper of differences of opinion, at the finish you were all one unanimous whole. I do hope your Institute and the Quantity Surveyors who work with you as a Chapter of your Institute, will work in that same amicable way in all your future meetings. Then you spoke, or one of the speakers suggested, that some public Bill should be introduced with respect to more defining your status, and things of that sort. Well, I am afraid you will have to go on as you have begun, and unless you can make out a very strong case, I am very doubtful if this could go through as a public Bill. It will have to go on as it has begun, or else you will have to introduce some private Bill for your special privileges, such as other people have had to do. I know that is a most expensive thing. But my advice to you at present is not to try and "bite off more than you can chew" at the present time. You have got an organisation to build up now; you have to rally round and to consolidate your own interests in it. And when you get a little bit stronger, and when you feel your way a little bit more, then you will be able to go with more confidence to the Government and the public of this country and state what you want, and probably get it. But I would not advise you to try and go too fast at the beginning. That is a lecture people are always giving me: "You want to go too fast." And I am just returning the compliment to a body of people who belong to a much younger organisation than the one that I do in South Africa at the present time, and who have had to go "through the mill." As far as the guests present are concerned, I want once more to reassure you that we all thank you very much for your very kind hospitality, and we hope on some future occasion to meet you again.

AT THE TOWN HALL.

After luncheon the gathering adjourned to the Town Hall, where they were officially welcomed by the Mayor of Pretoria, Councillor F. Day, who, introduced by Mr. T. Moore, said:—

Mr. Moore, Quantity Surveyors, Architects, Ladies and Gentlemen: it is a very pleasant duty that falls to me to welcome such a body to Pretoria at this time. On behalf of the citizens and the community, I have great pleasure in making you welcome to Pretoria and to all the sights to be seen round about. Further, I would like to say I wish to congratulate your body on the attainment of legislative recognition. You have accepted a very great responsibility. As one of the old philosophers says, "Some people grow under responsibility, other merely swell." My contact with both bodies, both Surveyors and Architects, has been of 25 years' standing in South Africa. I have grown up with the Public Works Department; I knew Mr. Moore when he was Chief of that Department; I know Col. Puntis, who is now Chief of the Department. And when I say that I would like just to remind you good people how much you have got to thank the Public Works Department for, all its institutions and all its

doings. I mentioned Mr. Moore's name advisedly, and I mentioned Col. Puntis' name, in comparison with what it was "way back" in the very early days of Mr. Cook. We have built up very many land-marks of enthusiasm, I have not the slightest doubt; and in the last 25 years, many Architects have grown up and have become men of consequence in South Africa. There was another philosopher who says, "Nothing great was ever achieved without enthusiasm." Now, it is very true in connection with architecture; it must also of necessity be true in connection with surveying, although probably the enthusiasm is more curtailed in connection with the surveying part than with the architectural branch. We have here in Pretoria very many land-marks of enthusiasm, as I have already mentioned. You have seen that great pile, the Union Buildings, to-day, and as Pretorians we are very proud indeed of the Union Buildings and would like to draw your attention to the other institutions which were founded and completed before the Union Buildings. In connection with education, in connection with technical education I think the first start was made in Pretoria, and I think in this respect probably the first Technical Institute was planted in our midst. Since that time colleges have grown, and we are a very powerful centre of education to-day, and it is our intention to remain a very powerful centre of education. You all know of the University College, and all the other high schools that we have got down in the East here, which have made Pretoria probably to some extent what it is to-day. Now, I am coming back to the Public Works Department: I have said already that I have grown up with the Public Works Department, and the Public Works Department has been a very sound and a very useful institution. Its foundation was laid in the very early days, and it was laid firmly and surely, and the work that that Department has carried out has been a credit to the Department and a credit to South Africa. Our Architects to-day have a very great responsibility; of all the professions—I may be very biased, I may be considered biased—but I think architecture probably is the greatest. And it is our duty—I have some little to do with it as well: and I say "our" advisedly; it is our duty to see to it that our production is of the best, that our foundations are surely and well laid. And I am sure that there is no lack of either brains or ability in connection with this great profession in South Africa. I am positive of that. One goes here and one travels there, and the signs are all in evidence of what I have said, and I speak as a builder who has got to put a clear interpretation on your ideas. I wish you all the success that you deserve in your great profession as Architects. In conclusion, I would like to say that the Councillors and my good lady and myself will be glad to have a cup of tea with you at the Kiosk in the Fountains Valley, when we will be able to show you something of nature there.

THE PRESIDENT-IN-CHIEF: Mr. Mayor, Mr. Moore, Ladies and Gentlemen: I have much pleasure, on behalf of the Architects and Quantity Surveyors of South Africa, particularly on behalf of the delegates who have come from distant parts of South Africa, in thanking the Mayor for his kind welcome to us this afternoon. I submit that Pretoria should feel highly complimented on our visit here this afternoon. We have only been able to devote one day for our delegates to go sight-seeing, and considering the magnificent scenic beauties we have around our city of Johannes-

burg, we nevertheless decided that we should come to Pretoria. Now, Sir, my only complaint about Pretoria is that you are too modest. Pretoria no doubt has a great advantage over other cities in the Transvaal in that it has historical associations. When one thinks of the names of Paul Kruger and General Botha, only to mention two of many, it is extraordinary to my mind that Pretoria makes so little of these old associations. I remember travelling in the south of England with an American. We came across an estate in which it was pointed out that somewhere on the estate King Harold fell. "Oh," said the American, "that is impossible." "No," was the reply, "it was on this estate." "Waal," said the American, "I guess if that had been in America, we would have settled in five minutes the exact spot, a stone would have been put up, and this place would be worshipped." Now, apart from its historical associations, we have a magnificent modern city in Pretoria. The work that has been done in Pretoria, of a civic nature and of a domestic nature, is well above the average throughout South Africa. And in addition to that, Pretoria is particularly fortunate in having its gems of architecture which have been produced by the Public Works Department. And we mention in connection with that our good friend Mr. Cleland, under whose supervision this work has been carried out. Still more has Pretoria an advantage over other cities in that it has two or three of the marvellous gems of our great friend Sir Herbert Baker. Mr. Sampson mentioned this morning that it was quite possible that Architects visiting the Union Buildings might, some of them, find particular parts to criticise. I feel quite sure, Sir, that there was not an Architect this morning who visited the Union Buildings but who left it in a state of absolute admiration. We thank you very much, Sir, for your kind welcome, and we hope that your city will still grow, and grow to such an extent that it will become the city of attraction for all visiting delegates in the Union.

From the Town Hall the party was motored to the Swimming Baths, a most welcome spot as the day had become oppressively hot. The Pretoria Swimming Baths are delightfully situated in beautiful gardens and it was

not very long before the happy and healthy children already swimming were joined by a merry group of Architects and Quantity Surveyors, who sported themselves in the clear and cool waters until four p.m.; in fact, it was as difficult a matter to entice them away at that hour as it had been at the Aerodrome in the morning.

Some of the visitors had motored on to the "Kirkness" brick works in the Fountains Valley where they were hospitably entertained and shown over the works by Mr. J. Kirkness.

The whole party assembled at the Fountains Kiosk where they were entertained to tea by the Mayor and Councillors of Pretoria.

We left about 5.30 and our sincere and heartfelt thanks are due to the Chairman and members of the Pretoria Committee, who organised one of the most delightful days of the Congress; to Mr. J. S. Cleland and Col. Puntis, who with their staffs did so much for us; to the Municipality and to the Architects and Quantity Surveyors of Pretoria, who nobly rose to the occasion and gave the finishing touches to a memorable Congress.

The Editor and the Registrar of the Central Council wish to take this opportunity of apologising for any errors that may appear in the report of the Congress. Every effort has been made to avoid such errors but owing to the rush in getting the "Record" to Press before the holidays, in order that publication should not be unduly delayed, it has not been possible to submit the reports of the speeches to individual delegates.

Photograph of Delegates.

Copies of the photographs, by Brittain, taken of the delegates on the steps of the University, can be obtained on application to the Registrar, Mr. J. S. Lewis, 1 & 2, Stanley House, price 10/6 mounted, or the two together on one mount, £1 1s. 0d.

THE S. A. MUTUAL PREMISES COMPETITION, BLOEMFONTEIN.

The awards in this Competition, which was assessed by Mr. Fred M. Glennie, of Capetown, have been made as follows:

First: Mr. H. A. C. Wallace, Bloemfontein; Second: Messrs. Lyon and Stekhoven, Capetown; Third: Mr. John Perry, Capetown.

The Assessors' report reads as follows:

I have pleasure in reporting that I have examined thirty-seven sets of competitive designs submitted in the above connection.

Each design has been carefully studied in conjunction with its accompanying report and estimate, and after due deliberation Nos. 9, 13, 18, 24, 32 and 33 were set aside for final consideration.

It should be mentioned here that the Society's requirements viz.: a combination of Offices, Shops, and Residential Flats, presented certain complications to the planning and elevational treatment, and I regret to report no ideal solution was submitted.

Viewing the designs in the nature of preliminary or discussion sketches, No. 13 offers the most satisfactory basis for further development.

This scheme provides a well lighted and ventilated general office for the Society's use overlooking the Square, with accommodation for Board and Resident Manager sheltered from the street noises and at the same time enjoying a Northern aspect.

It is the only design, moreover, to provide shops of real commercial value, while each of the First Floor suites is well lighted and ventilated and has windows overlooking the public thoroughfares.

The estimated cost based at 2s. per cubic foot is £42,000.

In connection with this competition we publish, with the permission of the "*Architect, Builder and Engineer*," the following letter headed "A remarkable Competition," which appeared in the November issue of that Journal.

A REMARKABLE COMPETITION.

"Some months ago the South African Mutual Life Assurance Society held an Architectural Competition for the design of their new premises in Pretoria and this having been attended by great success, though with some confusion in the awarding of the premiums for the designs placed second and third, the Society decided to institute another competition under the same assessor (Mr. F. M. Glennie), who is to be congratulated on the very clear and excellent way in which he handled both these matters. The second competition which

was for the Society's new premises at Bloemfontein calls for some comment as it was attended by remarkable incidents and has had an extraordinary, and by no means satisfactory, result from the competitor's point of view. I do not attach any blame to the assessor but I think that the occasion calls for very pointed comment. One of the conditions of the competition which related to a building of composite character proposed to be erected on the corner of Hoffmann Square and Maitland Street, Bloemfontein, was that two shops were to be provided on the Maitland Street frontage to the best advantage, no other reference being made to this accommodation. The Society's offices were to be upon the ground floor. The first floor to be devoted to accommodation for three important tenants whose accommodation was to be well separated. Two floors above were to be for general professional offices and the fifth storey laid out as residential flats. The award of the first premium was made to a Bloemfontein competitor (whom I am able unreservedly to congratulate on his success) upon the ground that he had provided the largest lettable space for shops in his design to the obvious curtailment of the Society's premises on Ground Floor level which all other competitors took to be the primary reason for building. In this view they were encouraged both by the framing of the very clear and excellent conditions and by the very decided replies to queries from competitors which were forwarded in due course and in commendably short and precise form. Notwithstanding the award of first premium, the second and third premiums were awarded to competitors who had given very secondary consideration to the provision of shop space.

When the designs had been duly adjudicated upon an exhibition of all the drawings was held in the Michaelis School of Art, Capetown, where the stretchers were very badly arranged in two separate rooms, thus hindering comparison of their merits and obscuring those lessons and deductions which are among the primary objectives from the viewpoint of competitors in such a matter. The worst feature of this Show was that an invitation to attend it was issued "with the compliments of the General Manager" (of the S.A. Mutual) under cover of a numbered list of the names of all competitors. This is a *bêtise* of the most unforgivable kind. One might as well publish in an examination list the names of the unsuccessful candidates.

It is an invariable rule that the names of unsuccessful competitors are never published except with their express consent, and this was certainly neither asked for nor given. It is certain that among the unsuccessful competitors there were firms of a standing which are at least as high as that of the successful competitors, but that fact would be heavily discounted by any member of the public (and there were such) who went to see the Show. The public is not aware of the reasons that prompt architects to go in for competitions—work for the staff in slack periods in the office—the desire to

compare one's work with that of other men upon a fair and common basis—the interest of the work are but a few of the reasons. Sometimes one sends for the competition conditions, enters and, on an unforeseen pressure of other matters ensuing, sends in drawings very hurriedly prepared and on the idea only of keeping reasonable faith and sending a bona fide design and securing return of the not inconsiderable deposit fee. No! the names of the unsuccessful are never published save with the preliminary consent of entrants, their express subsequent permission, or the conditions of what is known as the jury system of award where the competitors themselves decide the winners by the direct or the Greek method of voting. In the present instance very great harm has been done by this unfortunate publication of names. To take only one instance, one of the published names is that of a single architect personally unknown to the writer whose design from an architectural point of view eclipsed everything else in the Show. He signed his declaration of authorship

no doubt, and his name appears on the published list without the significant addition of the name of a brilliant young architect who has recently come to this country and whose name would have been bracketed with that of the gentleman concerned had the mutual design been placed. Some explanation of this very bad breach of etiquette should be given without delay.

I hope and think that the mistake has been unwittingly made; no professional architect would be a party to it, and I think that an acknowledgment should be made, and explanation given, and at least a donation made to some professional charity as a solace to the very disturbed feelings of competitors. Since the writer has no personal grievance, he hopes that the *Architect, Builder and Engineer* will take the matter up in the right quarter.

"QUERICUS."

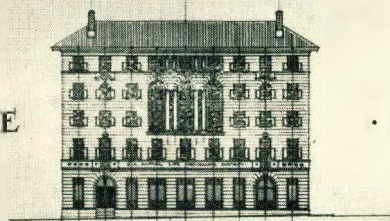
—*Architect Builder and Engineer.*

S·A· MUTUAL LIFE ASSURANCE SOCIETY

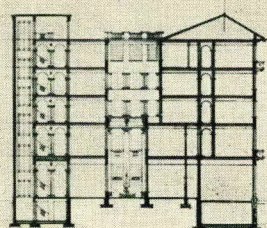
NEW PREMISES BLOEMFONTEIN 18 Jan

COMPETITIVE

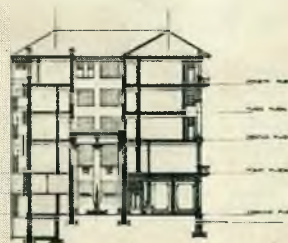
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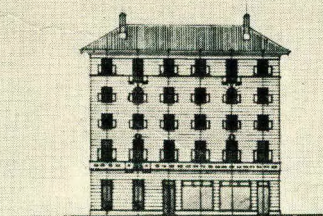
PRESIDENT HOFFMAN'S ELEVATION



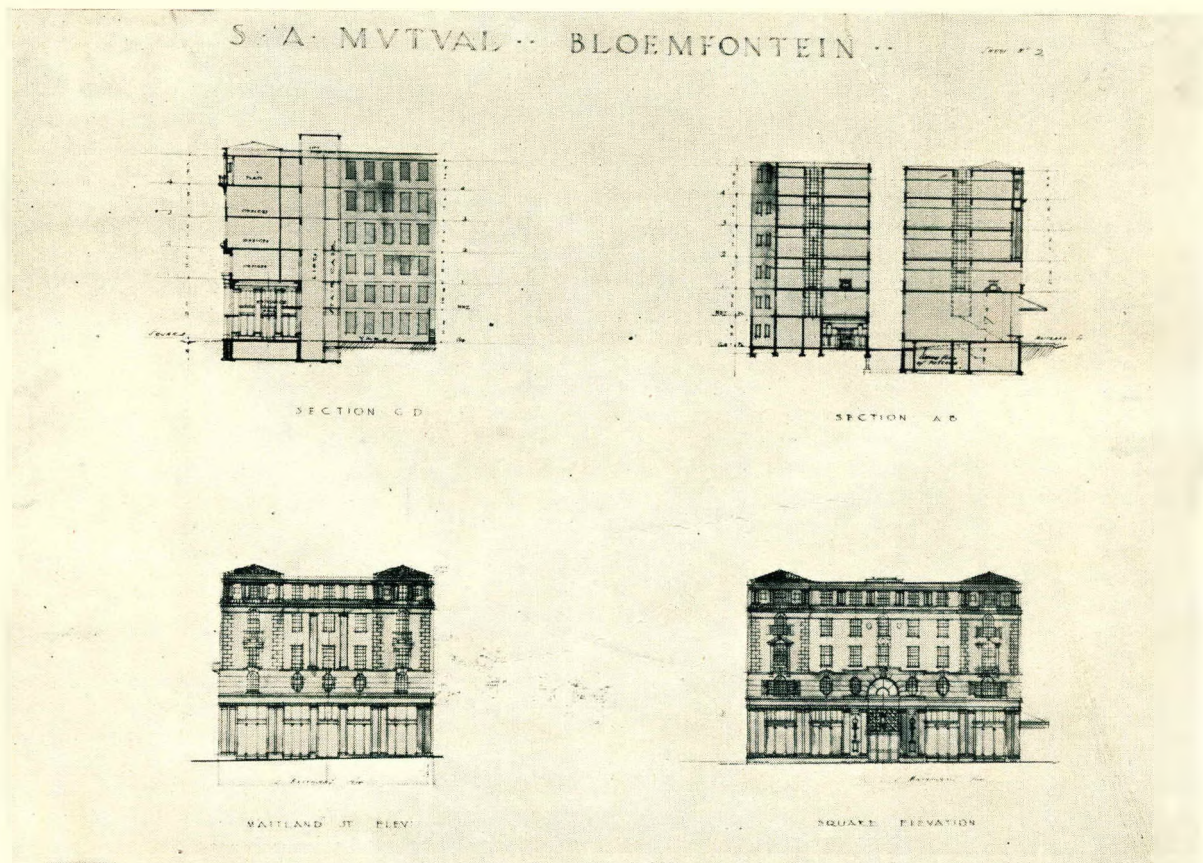
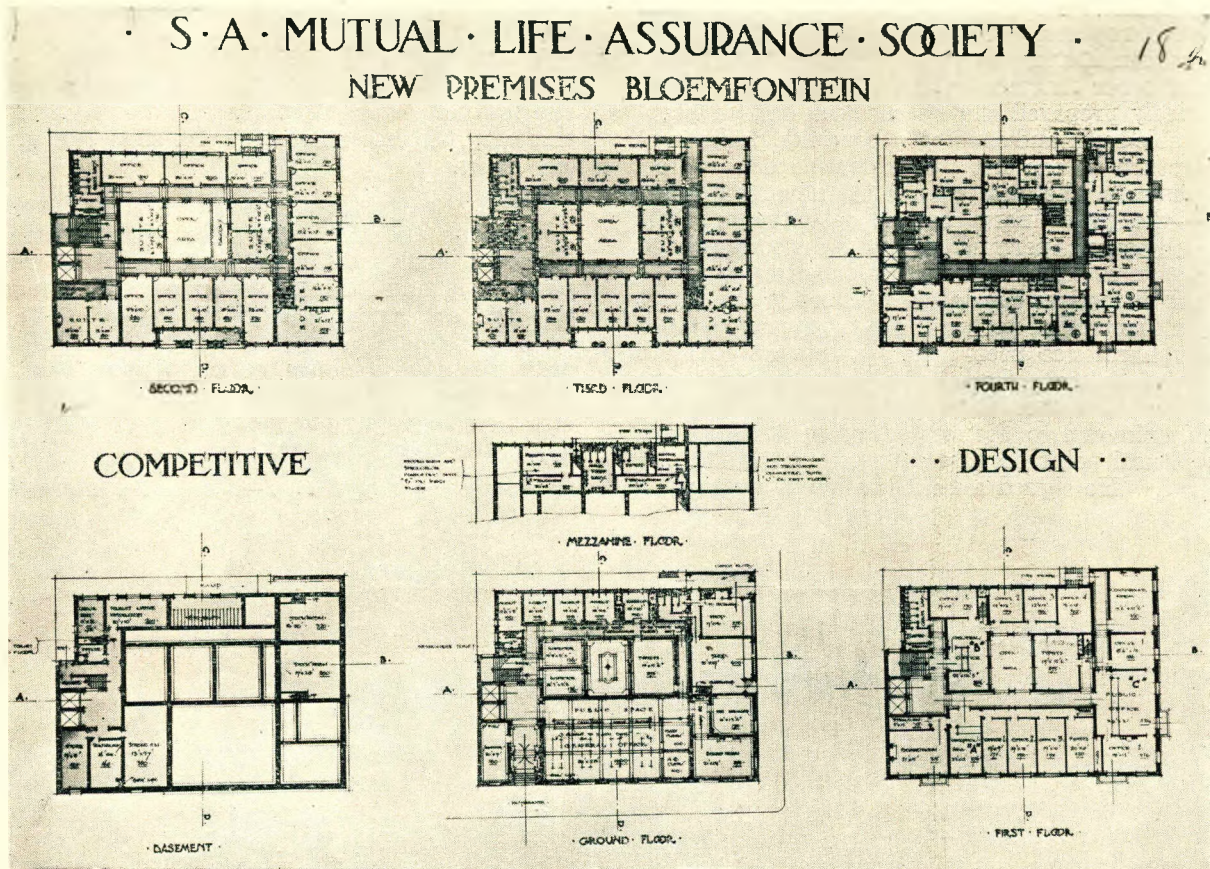
SECTION A-B



SECTION C-D



MATLAND ST ELEVATION



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