

Annual General Meeting of the Institute

The Annual General Meeting of the South African Institute of Mining and Metallurgy was held in Kelvin House on Wednesday, 24th August, 1977.

Dr M. D. G. Salamon (President) was in the chair and declared the meeting open at 16h00.

Obituaries

The President: It is my sad duty to announce the death of the following members of the Institute: C. G. Evans, J. P. Rees, Life Fellows; S. R. Bryant, H. MacConachie, M. Mrost, and A. W. van Zyl, Fellows; L. T. Campbell-Pitt, F. W. Collins, A. J. Duncan, I. G. Evans, F. W. Kleinschmidt, P. L. Vaughan, R. W. Wallace, and H. Wason, Members.

As a mark of respect to the memory of the deceased and in sympathy with the bereaved, I would ask you to rise and observe a few moments' silence.

Minutes

The President: May we confirm the minutes of the General Meeting held on 23rd March, 1977, as published in the June issue of the *Journal*? Agreed.

Welcome

The President: My next job is a very pleasant one, that of welcoming our distinguished guests and visitors.

First of all, I would like to welcome Mr L. W. P. van den Bosch, President of the Chamber of Mines, and Mrs Van den Bosch. I think all of you know that this Institute and the Chamber have had a very long, and very close association, and it is pleasing to see that Mr and Mrs Van den Bosch have managed to find the time to attend our function this afternoon.

I welcome, too, Mr N. Orsmond, the Government Mining Engineer, and Mrs Orsmond. Of course, Mr Orsmond is also one of our Honorary Vice Presidents.

We are also pleased to see our old friend, Mr T. L. Gibbs, and Mrs Gibbs. Mr Gibbs retired as G.M.E. some time ago. As you probably know, he is now the Chairman of the Board of the National Institute for Metallurgy.

And, while talking of the National Institute for Metallurgy, I would like to welcome Dr L. Alberts, who is now the Director General of NIM, and Mrs Alberts.

There are many other distinguished guests present — some ten Presidents of sister institutions and Chairmen of various associations. I hope you will forgive me if I do not welcome them personally, and I hope they will not take this as a lack of courtesy, or lack of hospitality. I welcome them all.

Membership

The President: The following candidates have been admitted to membership since our last General Meeting.

Fellows: J. Hill, W. Smart, L. N. Stewart.

Members: L. A. E. Carter, R. Dietrich, G. Gore, E. J. Magri, M. H. Maddocks, I. Pieterse, P. D. Price, T. R. Stacey, E. N. D. Westgate.

Associate Member: A. W. Bagnall.

Associates: P. D. Elvish, L. J. Ford, V. F. Scheepers, A. L. A. Turner.

Graduates: A. P. W. Briggs, A. C. Burrow, P. V. Livesey, A. B. McColm, J. M. Pressdee, I. G. Townsend, A. Vogel, P. W. Wilcock.

Students: B. N. Barnard, J. T. Collins, S. F. du Toit, J. R. de Villiers, P. Gericke, K. G. Gribnitz, F. C. L. Hutten, G. G. Jacobs, R. E. Jennings, A. J. Lategan, D. P. Martin, K. V. Maske, L. J. Meyer, J. C. Nel, P. M. Reinecke, D. B. Steyn, G. de B. van Niekerk, J. S. van Zyl, B. M. Veller, G. L. Waller, M. Welthagen.

Company Affiliates: Delfos and Atlas Copco Pty Ltd.

Transfers to Fellow: P. R. Jochens, R. Pendreigh, H. J. Smith.

Transfers to Member: R. J. Adey, P. W. Greef, A. P. S. Howard, R. A. Laybourne, J. M. L. Lewis, R. le Marchant, E. J. Pedroncelli, A. P. van Jaarsveld, F. B. Weldon.

I welcome the newly elected members to the Institute, and congratulate those who have transferred to higher grades.

Medal Awards

The President: The next item on the agenda is probably one of the most pleasant, namely the presentation of our awards.

There are two awards of silver medals this year, and I hope you will join me in congratulating the winners of these awards.

First of all, Dr N. C. Joughin. Dr Joughin was born in Ficksburg, and was educated in Pietermaritzburg and at the University of the Witwatersrand, where he gained a B.Sc. Degree in Engineering and, later on, a Ph.D. degree.

He first joined the Bernard Price Institute for geophysics, and later joined the Research Organisation of the Chamber, where he is one of my very close colleagues, and is today Assistant Research Adviser. He has risen very rapidly through the ranks.

Dr Joughin's medal has been awarded for his paper entitled 'Potential for the mechanization of stoping in gold mines'. This paper was published in the January 1976 issue of our *Journal*. I am sure that those of you who have read the paper will probably discuss his arguments for a long time, because this is a subject that is rather controversial.

I call on Dr Joughin to receive his medal.

Dr Joughin: Mr President, ladies and gentlemen, I feel greatly honoured that I have been awarded this medal, and I would like to express my sincere thanks to the Institute for the honour bestowed on me. Thank you.

Our next award winner is Mr Max Harris. Mr Harris was educated in Rustenburg, and at the University of the Witwatersrand, where he received a B.Sc. degree in Mining and Metallurgical Engineering.

He started his distinguished career in 1946, and he is now the Managing Director of Delta Manganese (Pty) Limited. We can all be proud to have him as a colleague in this Institute, especially as he is the person who established the world's largest electrolytic manganese plant in Nelspruit, which is able to produce some 17 500 tons per annum.

Mr Harris receives his award for his contribution to the development of the electrolytic manganese process in South Africa, and for his paper entitled, 'The production of electrolytic manganese in South Africa, with special reference to the Delta Manganese operation at Nelspruit'. The paper was published in the February 1977 issue of the *Journal* and was written in collaboration with Messrs D. M. Meyer and K. Auerswald. I congratulate both Mr Harris and his co-authors on an excellent paper. I ask Mr Harris to come forward to receive his award.

Mr M. Harris: Mr President, ladies and gentlemen, I am indeed proud to have received this award for my contribution to electrolytic manganese production in South Africa. Thank you.

Presentation of Student Prizes

The President: The next step in the presentations really warms the heart of the President each year, because it shows that our younger colleagues can produce good papers, and gives promise of good things to come. This year we have four prizes — three in mining and one in metallurgy. The prizes are as follows.

Mr S. M. Gould receives a prize for his paper entitled 'The effect of the extraction of Number Two shaft pillar at Blyvooruitzicht Gold Mine on the shaft pillar excavations'.

The second prizewinner is Mr A. G. W. Knock, for his paper 'A prediction of a long-term future of tin based on influences exerted by the metal market and logistic curves drawn as a function of total cumulative ore reserves'. It is very nice to see that our young engineers are interested in the business side of mining and not purely on the technical side.

The final prize-winning mining paper is by Mr E. Rorke and is entitled 'Accident prevention and the cost of injuries in the gold mining industry'.

The prize-winning metallurgical paper is 'A dilatometric investigation of a 400-grade maraging steel' by R. C. Buchanan.

Annual Report of the Council and Accounts for the year Ended 30th June, 1977

The President: In presenting the Council's report to you, I shall touch on only the unusual events, and on the events that I regard as especially important.

First of all, the activities of the Education Committee. I mention this first because I think this is an area in which the Institute will do more and more as the years go by, and I am pleased to be able to say that our activities are becoming broader and, I hope, more effective.

Not long ago, the Education Committee organized a seminar in Cape Town, which was attended by representatives of the Institute, industry, and students, to try and ascertain the students' views on the mining and

metallurgical industries. Unfortunately, I could not be present on that occasion, but, from what I have heard, we learnt much that will require action, and we intend to follow this through.

Also, we have established student prizes, which are awarded not only for academic merit but for enthusiasm and for a contribution to the building up of the professional spirit in mining and metallurgy. We do not wait until the student has actually graduated to award the prize, but try to encourage younger students earlier on in their academic careers.

I am very pleased to announce that, at long last, the Phoenix Programme is on the road. The National Committee has been formed, and has had its first meeting. Mainly due to the activities of Dr Robinson, we have succeeded in collecting a significant amount of money, and, with the money contributed by the Chamber of Mines, the Phoenix Programme rests on a sound foundation.

I am satisfied that our system of colloquia is still reasonably successful, although we realize that we cannot become complacent and we keep our minds open for new ideas.

This year, as in the previous year, we held two vacation schools in July and August.

The subject of the metallurgical school was the theory and practice of grinding, and of the mining school, mine ventilation. Roughly an equal number of delegates attended the schools, and the mining school was repeated. I think we can say that these vacation schools were reasonably successful, although perhaps we should wait for the reaction of those who attended and not try to judge for ourselves.

The colloquia aim at topical problems, tackled mostly from a very practical point of view, while the vacation schools investigate a problem area in greater depth. Thus, the two activities combined serve to keep us up to date in our respective professions.

Many of you probably know that the Council of the Commonwealth Mining and Metallurgical Institutions has decided to hold their 11th Commonwealth Mining and Metallurgical Congress in Hong Kong next year, during May. I was pleased to receive a copy of the second circular as we were becoming a little anxious about lack of news. I am gratified to note that a number of South African papers have been accepted, and it appears that the technical programme is going to be really worth while.

You will note that a significant portion of the Annual Report is devoted to the activities of the Federation of the Societies of Professional Engineers. Your Council is concerned that the F.S.P.E. frequently appears to wish to assume a role that properly, in our opinion, belongs to the constituent societies of the F.S.P.E. Apart from this, the F.S.P.E. has shown that it can play an important role in the development of the engineering profession in South Africa.

Presidents of this Institute have to rely on the help and cooperation of members of Council, the efficient services of our secretary, Miss Theron, and her assistants, Mrs Henderson and Mrs Rose, and on the contribution of Mr Eric Boden, the manager of A.S. and T.S., and his

staff. This year, this reliance was greater than in most other years. As some of you know, because of ill health I was forced to spend a considerable time away from office. During this difficult time, my colleagues, Miss Theron, and others, accepted the additional burden without hesitation and without complaint. I would like to take this opportunity to thank all of you for your kindness and help during those months.

I now call on Mr J. K. E. Douglas, our Honorary Treasurer, to present the financial part of our Report, and to second its adoption.

Mr Douglas: Mr President, honoured guests, ladies and gentlemen. It is my pleasant duty as your honorary treasurer to second your motion and in doing so to briefly review our financial position.

You will see in the published accounts that we again showed a surplus of R18 355 in that revenue exceeded expenditure by that amount. We had expected a break-even situation, and this was very welcome. Several reasons accounted for this surplus. The vacation schools, which normally budget to cover costs, yielded a surplus of R6296. This was primarily due to the fact that more candidates were admitted than originally budgeted for, and reflects the popularity and high standard achieved in these schools. One must point out, however, that members of the organizing committee and others give their services on a free and voluntary basis. Had this not been so, the cost of these dedicated persons would have wiped out any surplus. We are grateful to them for their hard work.

This year we raised the fees to R300 for these schools to counter rising costs. This fee is, I believe, very moderate compared with the fees charged for similar weekly courses held in this town. The Institute's main objective, however, is not to make money from these schools but to conduct courses of high standard in an endeavour to advance our professions and I can assure you this is being achieved.

Another factor that contributed to the surplus was the improved advertising revenue and the lower printing costs of the *Journal* this year. A lower volume of printing accounted for this reduction in cost and, while high volume does not necessarily reflect a better standard, there has been a feeling that our journal has become a little skimpy and that the scope of its contents could be enlarged. The new Council will no doubt give this matter attention in the year ahead.

Another factor contributing to the surplus was that we were repaid R3615 by the liquidators of Wilson and Mansfield. Unfortunately, R10 330 of the Institute's funds was deposited with these brokers in 1973 and was written off at the time as we saw little hope of recovering it.

The net cost of administering the Institute, after the exclusion of extraneous costs such as vacation schools, symposia, the *Journal*, and the printing of publications, rose from R35 393 to R42 682, an increase of 21 per cent. As has been indicated, our revenue counterbalanced this, but this was somewhat fortuitous and one cannot expect this to happen every year. The decision of Council to increase fees by 25 per cent is considered fully justified with costs rising as they are

doing. I think also it is the first increase for several years, which is more than can be said for the cost of most things in these days of high inflation.

The capital funds in the Education Fund and the MacArthur Forrest Fund were again adjusted upwards to allow for the devaluation of money, and these now stand at R76 181 and R6628 respectively. This provides the Institute with the opportunity of playing an important role in technical education.

Our investments continue to be satisfactorily handled by Syfrets Trust, and the interest generated from the various loans and debentures now constitute a significant source of revenue. A total of a little over R100 000 is invested through Syfrets, and the balance of our funds are in a more liquid form in building societies, banks, and on call.

This briefly summarizes the position. In conclusion, I express my sincere appreciation to Mr Trueman, our hardworking accountant, and to Miss Jane Theron and her staff, without whom I could not fulfil my duties. Finally, Mr President, I would like to say how pleasant it has been to work with you this year. I speak on behalf of all when I say this. We are delighted that you have recovered so well from the serious illness that marred your year of office. We wish you a total recovery and the best of health for the future.

I now have pleasure in seconding your motion for the adoption of the annual report and accounts.

The President: Thank you, Mr Douglas. May I take it that the Annual Report, together with the Accounts, is accepted?

Agreed.

Declaration of Election of Office Bearers and Members of Council for the Year 1977-1978

The President: I have pleasure in announcing that, in accordance with Clause 3.3 of the Constitution, the retiring Council has elected the following as Office Bearers for the ensuing year.

President: Mr P. A. von Wielligh.

Vice-Presidents: Dr M. G. Atmore and Mr D. A. Viljoen.

Immediate Past President: Dr M. D. G. Salamon.

Honorary Treasurer: Mr J. K. E. Douglas.

Ladies and gentlemen, I shall now read the letter from the scrutineers, declaring the election of the members of Council for the year 1977/1978.

'We have to report that we have inspected the nomination papers for Members of Council for the 1977/1978 session, and have found that the ballot papers sent out to corporate members of the Institute were in order.'

I may interject here just to mention that, as you corporate members all know, we actually had two ballots because unfortunately the first ballot paper contained a mistake and was replaced with a second one. Thus these remarks refer to the second ballot paper. There was a return of 425 ballot papers, representing a 33,5 per cent ballot. As a result of our scrutiny, we find that the following members have been elected: J. D. Austin, A. N. Brown, A. A. Hazell, P. R. Jochens, R. P. King,

D. G. Krige, D. G. Malan, H. G. M. Rose, A. A. Sealy, R. A. von Maltitz.'

I congratulate the re-elected members, and welcome the newly elected members of Council. I hope they are going to have a very successful year with the new President and new Office Bearers.

In terms of Clause 3.2.8 of the Constitution, Mr T. Wilmot, in his capacity as Chairman of the Witbank/Middelburg Branch, and Mr A. N. Shand, in his capacity as Chairman of the Orange Free State/Klerksdorp Branch, will serve on Council.

The following Past Presidents have signified their willingness to serve on Council for the ensuing year: H. Britten, R. J. Adamson, D. G. Maxwell, Professor D. D. Howat, Dr J. P. Hugo, P. W. J. van Rensburg, Professor R. P. Plewman, and Dr R. E. Robinson. I thank these Past Presidents for their willingness to serve. We rely on their help in running the Institute's affairs.

Induction of President

The President: We have arrived at the highlight of this Annual General Meeting, namely, the induction of the new President. I congratulate Mr Von Wielligh on his election, and would like to introduce him to you and, as is customary, give you some background about your new President.

Mr Philip von Wielligh was born in June 1917, and began his education in Pretoria, which was later completed at the Witwatersrand Technical College and the South African College of Mining.

Philip joined JCI in 1936 as a sampler, and since that date he has served that company in many capacities, including that of underground manager, section manager, manager, assistant and later full consulting engineer for coal, and from 1973 onwards chief consulting engineer.

In 1974 he was appointed to the Board, and in July 1976 he became an executive director of JCI. Being a research man myself, I have done some research and have managed to establish that he is either chairman, or a member of the Boards of twenty companies. You probably know that he is currently the senior Vice President of the Chamber of Mines, which is a position of great prestige in the mining industry.

Philip von Wielligh has obviously come a long way professionally. He has become one of South Africa's most senior mining engineers. But what about the person — the man behind the professional exterior? I can assure you that we have a warm human being in Philip, who listens to and understands the problems of others, who has an excellent relationship with his staff and is respected by them all. He has achieved his position in the industry, and the prestige and respect he enjoys, without apparent effort. I am sure this is not really right — it only appears to be. His quiet and unassuming manner has ensured that he has gained, and retained, the respect of all who have been associated with him over the years.

I am sure you will agree with me that the President's year is going to be very heavy for him, and for his charming wife, Maud. His normal duties, his duties as Vice-President of the Chamber, and his workload as

President of this Institute would tax the energies of any man. But he is not just any man. He is a man who always rises to the challenge of the occasion.

Perhaps it is not surprising, therefore, that our new President belongs to that group of people whose main hobby is work. I managed to find out that he has other hobbies as well, but I think everybody agrees that his main hobby is work — and mainly work of a practical nature. He is a down-to-earth practical engineer.

I have been amazed to observe how the fortunes of the Institute, and the wisdom of Council, have ensured that, over the years, a balance is maintained at the helm. During the last two years, there have been Presidents with research backgrounds, perhaps inclined towards somewhat theoretical solutions. In Philip von Wielligh we have a President whose feet are firmly on the ground, and who will look for the practical, pragmatic solution.

Ladies and gentlemen, I present our new President, with every confidence that his contribution to the affairs of the Institute will be memorable, and will help to ensure that our progress will be solidly founded.

And to you, Philip, I offer my heartiest congratulations and wish you every success during your Presidential year.

Mr Von Wielligh: Dr Salamon, honoured guests, ladies and gentlemen, there sometimes comes a time in a man's life when he achieves an ideal that, at the outset of his career, however ambitious he may be, he considers to be attainable by only the very talented in the profession he represents. In honouring myself and my wife by entrusting me with the responsibilities of President of this Institute, you have brought me face-to-face with such an ideal. I thank you for the confidence you have shown in me by electing me to this high office.

Dr Salamon, thank you very much for the way in which you introduced me. I appreciate every word you have said — although I don't deserve it all. Thank you very much.

Ek aanvaar hierdie verantwoordelikheid met 'n nederige dog bewustelike herkenning van die hoë standaard wat van my verwag sal word om te handhaaf gedurende die jaar wat ek aan die roei sal staan. Hierdie standaard is gebaseer op traditiesies soos bepaal deur die stigters van ons Instituut, en oor die jare is daarop verbeter deur geëerde en prominente leiers van die Instituut, van die industrie, wat ook bereid was om in ons Instituut 'n leidende rol te vervul.

Die professies wat deur hierdie Instituut verteenwoordig word het tot hede 'n wesenlike bydrae gelewer tot die vestiging, instandhouding en uitbouing van die mynindustrie in Suid Afrika. Die omvang, sofistikasie en tegnologiese prestasies van hierdie strategiese industrie, wat ons geëerd is om te dien, vergelyk meer as gunstig met die beste in die wêreld. Gevolglik aanvaar ek, met 'n diepe trotsgevoel, maar ook met 'n mate van onsteltenis, die verantwoordelikhede verbonde aan hierdie posisie waartoe ek so pas verkies is.

Wees verseker dat ek my bes sal doen om te sorg dat hierdie komende jaar ook 'n suksesvolle jaar vir die Instituut sal wees. Hierin is ek bevoorreg om te mag reken op die bystand van 'n pas-verkose uiters bevoegde en energieke aantal Raadslede.

The experience, guidance and advice of Past Presidents is a valuable asset, and I am particularly grateful that a number of old stalwarts have signified their willingness to serve on the Council for at least a further year, and among them, I am happy to say, is our retiring President.

I consider it a privilege to congratulate you, Dr Salamon, on an outstanding year of office. You have concluded your year by performing, in your usual unassuming and quiet, yet efficient manner, the rituals associated with an Annual General Meeting. It brought to mind a remark I heard only last night about the brevity that should be associated with public speaking, and it is said to have a biblical background. This remark is: 'He who thinketh by the inch, and speaketh by the yard, should be kicketh by the foot'.

Ladies and gentlemen, you will agree with me that our retiring President has set an example this afternoon in abbreviating the proceedings, or the formal part of the meeting up to this stage, very materially. His leading of the Institute is all the more creditworthy, considering the serious ill health that plagued his year of office. We rejoice with his family in the remarkable and apparently complete recovery he has made, and, on behalf of the Institute, I echo what Mr Douglas has already said and wish him many years of good health.

Dr Salamon has brought honour to the Institute, not only in the manner in which he conducted the Council meetings, but also in the creditable manner in which he represented the Institute wherever and whenever he was called upon to do so. His scientific, and one can almost say, research-orientated approach, coupled with his administrative ability, has resulted in establishing standards that I, for one, may find it no easy task to uphold.

Fortunately, as immediate Past President, he remains an Office Bearer, and as such will continue to shoulder an appreciable proportion of the burdens associated with the successful running of the Institute. Such burdens, unfortunately, have a tendency to escalate in magnitude and complexity, in sympathy or in parallel with the problems associated with the industry, the professions we represent, and the country as a whole. His special skills and attributes are, therefore, still very much needed.

I am both privileged and reassured to have two men of outstanding ability and experience to support me in their capacities as Vice Presidents during my year of office. Dr M. G. Atmore and Mr D. A. Viljoen have, over a number of years, assisted, with skill and devotion, in guiding the affairs of the Institute. Moreover, they have displayed a high degree of loyalty, which I believe is one of the essential prerequisites in the high offices to which they have been elected.

We, as members of the Institute, can also consider ourselves fortunate that other men of similar stature and calibre are prepared to serve as Office Bearers and Counsellors, notwithstanding their responsibilities to their employers.

May I, at this juncture, place on record a word of gratitude and appreciation towards the employers who, in addition to being Company Affiliates, also make an appreciable contribution by adopting an attitude of

understanding towards those of their senior executives who are serving the Institute.

We are once again privileged in that Mr Douglas, who has administered our finances in a responsible and efficient manner for the past four years, has agreed to continue for at least one more year. We shall talk again at the end of the year, Mr Douglas.

In the present era of traumas in the financial world, we can indeed be grateful that our finances are still sound, and that we are solidly solvent. For this, the credit is largely due to Keith Douglas, and I thank him for what he has done and what I am sure he will continue doing.

I congratulate the re-elected members and the newly elected members of Council. The re-elected members, I know, will continue with the good work, and to our newly-elected members, Messrs Brown, Hazell, Rose, and Sealey, I bid a special word of welcome. We are happy to have you, and I hope you will look upon this, your initial election to the Council, as an important day in your lives.

To our Past Presidents who have signified their willingness to serve at least one more year on Council, I extend a special word of thanks. Without their guidance, wisdom, and dignity, the Council would be far less capable of dealing with the affairs of the Institute.

To Dr Helen Glen, our Honorary Editor, I would like to express a special word of appreciation for the very excellent services she has been rendering the Institute. I hope she will continue in her present capacity for many years to come.

I would also like to record our appreciation of the services rendered by Mr Eric Boden. He somehow finds time to attend most of our Council meetings, and has given us valuable advice on administrative matters when such was needed.

Finally, to Miss Jane Theron, our secretary, and Mrs Jane Henderson, who so ably assists her, a special 'thank you' for the efficient manner in which the secretarial needs of the Institute have been catered for. I will, as I am aware my predecessors have done, rely heavily on them, to ensure that what needs to be done administratively is done correctly and timeously.

It is now my pleasant duty to ask Dr Atmore to take his seat on my right, and to invite Mr Viljoen to join us on the rostrum on my left.

Mr Viljoen: Mr President, honoured guests, ladies and gentlemen, as the newly elected junior Vice President, it is my duty, on behalf of Dr Atmore and myself, to congratulate the new President of our Institute, and to express our appreciation of the honour bestowed upon us in our election as Vice Presidents for the ensuing year.

Our President has an exacting year ahead, with many difficult items on the agenda. Added to these will be the considerable task of coordinating arrangements for the Commonwealth Congress to be held early next year.

Mnr. die President, Dr Atmore is aan u welbekend as iemand wie in die verlede 'n belangrike rol in die transaksies van ons Instituut gespeel het. Onder sy leiding sal ons u tot die uiterste ondersteun gedurende die jaar wat voorlê.

Mr Brown: Mr President, ladies and gentlemen, on

behalf of the newly elected members of Council and those who have been re-elected, I would like to pledge our support to the President, and thank you for your confidence in having elected us to the Council. We would also like to assure you of our wholehearted support and assistance in the year that lies ahead.

Appointment of Auditors and Honorary Legal Advisers for the Year 1977-1978

The President: I propose that Messrs Alex, Aiken and Carter be appointed auditors and Messrs Van Hulsteyn, Duthie and Saner be appointed honorary legal advisers to the Institute for the coming year.

Agreed.

General Business

The President: Is there anything that any of the members wish to raise under this heading? If not, I shall ask Dr Atmore to take over the Chair whilst I deliver my Presidential address.

Presidential Address

Mr Von Wielligh delivered his Presidential Address entitled 'Minerals and the survival of mankind' (re-printed elsewhere in this *Journal*).

Vote of Thanks

Dr Atmore: Ladies and gentlemen, I am sure that you will have been as stimulated as I was by Mr Von Wielligh's address. Any discussion or address today that has the word 'survival' in it has to be thought-provoking, and his certainly was.

There were two other things that, to me, made it an outstanding address. Mention was made earlier of Mr Von Wielligh's broad approach. Well, it was a very broad address that was given to you, and it was a very practical address, and I thoroughly enjoyed it for that reason. Finally, something that is not often mentioned — I thought it was beautifully presented.

I should now like to call on Mr Wells to propose a formal vote of thanks.

Mr Wells: Thank you, Mr Chairman. Ladies and gentlemen, I feel particularly honoured that, as a non-mining man, I have been invited to present this vote of thanks in the presence of so many distinguished miners and metallurgists. Their stature, in my eyes, rose substantially despite the very high regard I have always had for them, when I heard Mr Von Wielligh quantify them in terms that I understand — that they represent sales in the current year of something like R5 billion.

I am also particularly pleased, Mr Chairman, in proposing this vote of thanks to the new President, to be able to do it because he is Mr Von Wielligh. It gives me, therefore, considerable pleasure, and a great deal of personal satisfaction.

Mr Von Wielligh and I have been colleagues for many, many years — more than he and I would care to recall — and in that time I have developed a high regard for him as a man, and a respect for his calm, pragmatic approach to problems, for his qualities of leadership, the soundness of his judgments, and his complete integrity.

This Institute, which has been headed by many distinguished men in the past, is again fortunate this year

to have a man of Mr Von Wielligh's character and ability to lead it.

In his speech, which we listened to with keen attention, Mr Von Wielligh outlined the role that minerals have played in improving man's material well-being, and in raising his living standards to their present high level. He told us that the currently known reserves could be finite, and that, therefore, a great responsibility rests upon the mining and metallurgical communities of the world to improve their methods of finding, evaluating, extracting, and processing these reserves.

He summarized, in a most interesting and succinct manner, the developments taking place in the technologies concerned. In bringing them right home to us, he stressed the importance of the mining and metallurgical industries to South Africa, the need for continued research, and the need to attract to these industries people with the brainpower and the management potential to develop them for the benefit of all.

I will not comment on research. This has been done on many occasions. In any event, the need for it is apparent. How much should be allocated to it and what direction it should take are matters that get learned men and financiers both hot under the collar.

But, ladies and gentlemen, there is one aspect I would like to comment on arising out of Mr Von Wielligh's speech, and that is the attracting of brainpower and management potential to the mining and allied industries.

The inability of these industries, particularly the mining industry, to attract sufficient young men of talent to the ranks is frequently discussed, and, while we heard from Mr Von Wielligh that there is an increasing inflow into the universities, I do not believe that the gap is being sufficiently met. It would seem to me that the time has now come for the professions concerned, in conjunction with the major employers, to have another look at what attracts young people of talent, and what deters them, when they decide upon a career and, of course, most important, what action should be taken by the mining and allied industry represented here to get their full share of the available talent. What is it that deters them from choosing the mining industry?

Just a few questions come to my mind. There are many more. Is it salary? Is it lack of promotional opportunity? Is it too limited and specialized a training, that leaves these people of talent in culs-de-sac as technicians while others of possibly lesser talent forge ahead into general management and into seats on the boards of companies. Is it a lack of public recognition and a resulting lowering of the social status of the jobs they hold? Young accountants, lawyers, marketers, and business men get frequent publicity in the Press for their achievements and, as you will note, sometimes for their non-achievements.

The achievements of the younger members of the mining and metallurgical industries tend, as far as the general public is concerned, to be cloaked in silence.

In recent times many changes have been made in the nomenclature of jobs. Is there scope for such change in the mining industry? It might be a small matter, but are

titles such as shift-boss and mine captain still appropriate to the socially ambitious young man?

Is the group organizational structure the main culprit? Is it as fundamental as that? Does the strict hierarchy it imposes, and the tendency to centralize control at head office, inhibit development, stultify ambition, and detract from job satisfaction?

Would a greater decentralization, leaving each mine to be run by a managing director responsible for all facets of its activities — production, finance and marketing — not only be a more effective and cheaper form of management, but at the same time provide the incentives, the opportunities, that talented and ambitious young men want?

My main point, Mr Chairman, is that, if we want to solve the problem, we should research its causes before prescribing remedies, and in this regard this Institute, whose members are most directly concerned, can play an important part.

Mr Von Wielligh has said that the good Lord gave us a bountiful supply of minerals, and, to balance the advantages, he gave us a vexing mix of races. The two, of course, interact. If we can find socially and politically acceptable solutions to our problems, the future for these industries is bright indeed. If we cannot, or if there is delay in doing so and we are subjected to continuing external pressures, then the products of these industries will be our main strength and our main counter-weapon.

Whether we live in an atmosphere of acceptance and prosperity, or of rejection and siege, the part to be played by the members of this Institute and the industries they serve will be of the utmost importance to us. Therefore, the new President's appeal for increased effort and increased productivity assumes a new relevance and a new urgency.

Mr Von Wielligh raised many points in his wide-ranging speech, some of them philosophical and of longer-term interest that could be the subject of endless debate. Are mineral resources, in fact, finite in the context of man's need for them? Are there limits to growth? And should we, as the President suggests, now start to cut back on the use of raw materials and redistribute them from those that have to those who

have not? And even if this were desirable, would it be politically possible to do so? How much attention should we pay to the new generation of Malthusians, with their computers and their exponential projections into the future and often into absurdity? How much attention should we pay to their prophecies of doom? We could debate these, ladies and gentlemen, *ad nauseam*. But Mr Von Wielligh's absorbing speech has provided us with much food for thought, and, being the man he is, I am sure that he did not wish it to form a basis for academic debate, but as a blueprint for practical action.

Ladies and gentlemen, it gives me great pleasure on your behalf to congratulate Mr Von Wielligh on his election as President, to wish him well in his term of office, and to propose a warm vote of thanks to him for his valuable, well-researched, well-delivered, and stimulating address.

Dr Atmore: Mr Wells, you raised some important points. Your remarks will be published, along with the President's Address, in our *Journal*. I am sure they will be studied, and I am quite sure they will be spoken about — hotly — in the future. Thank you very much indeed.

The President: Mr Chairman, thank you very much. Mr Wells, thank you for your kind remarks, and for the useful, cryptic and to-the-point analysis of my address. You succeeded admirably, in your usual eloquent manner, in highlighting the important aspects of the contents of my address. Your suggestions will no doubt be an important adjunct to my paper, and our Education Committee may be well advised to follow this up. Thank you very much.

Conclusion

The President: Thank you, Dr Atmore, for acting as Chairman during my brief absence.

Dames en here die formele deel van ons agenda is nou afgehandel. Graag wil ek u bedank vir u teenwoordigheid, ondersteuning en geduld.

Ladies and gentlemen, and honoured guests, as a finale to our formal programme, I thank you for your attendance and support, and declare the meeting closed.

The meeting ended at 18h00.

Management of resources

The Australasian Institute of Mining and Metallurgy and the American Institute of Mining, Metallurgical and Petroleum Engineers are to hold a joint conference on 'International Resource Management' in Canberra from 15th to 18th May, 1978.

Papers are to be presented on the following topics:

- The Mineral Equation
- The Energy Equation
- Environmental and Social Responsibilities
- Producer Groups and Commodity Agreements

Role of Governments
Relations with Public, Profession, and Governments.
All communications in connection with this conference should be addressed to
The Co-ordinating Officer,
Joint Conference, 1978,
The Aus.I.M.M.-A.I.M.E.,
P.O. Box 310,
Carlton South, Victoria 3053, Australia.