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FAREWELL PRESENTATION to DR. H. SPENCER JONES, F.R.S.

On Wednesday, the 8th February, 1933, a meeting was held in the Oddfellows' Hall, Plein Street, Cape Town, which was unique in the history of the Society. It was the eve of the departure of our President, Dr. H. Spencer Jones, for England, to take up his appointment as Astronomer Royal at Greenwich. In order to give expression to their congratulations to Dr. Jones on this distinction, and to record their appreciation of the signal services he has rendered the Society since his arrival in the country in 1923, this meeting was held for the purpose of presenting to him a stinkwood cabinet.

The Society was further honoured on this occasion by the presence of its distinguished member, General Smuts, who took the chair. In making the presentation,

GENERAL SMUTS said:

“We have come together to honour our friends, Dr. and Mrs. Spencer Jones, and in the first place to express to them our congratulations, and in the second place to tell them how sorry we are that they are leaving. This is an occasion that causes mixed feelings—joy for the promotion that comes to a first-class man of science, and sadness at his parting.

“Dr. Spencer Jones came here with a very fine record; he had distinguished himself at Cambridge, and had obtained an honourable record at Greenwich. He came out to one of the most important posts in the Empire.

"The Cape Observatory has, from generation to generation, made important contributions to science, and Dr. Jones has added to its record in such a way as has led to the highest promotion that is possible, I believe, for a man in his line.

"He has made good, and so has Mrs. Spencer Jones. We say farewell to them with sad hearts, knowing that we are saying farewell to a man and woman who have identified themselves with the intellectual and social life of Cape Town. It will be very difficult for their successors to fill their places. Dr. Spencer Jones must go to a higher sphere, and we congratulate him and wish him all possible luck. He is getting what is the blue ribbon of his profession, and we are glad that we have had a great astronomer among us. These are days when astronomy wields a power and authority in science like that of few others of its branches. Dr. Spencer Jones knows more about the interior of many stars than some of us do about the earth itself.

"The Observatory here has done first-class work for generations. It has set itself certain jobs and stuck to them for long periods of years. First the mapping of the southern heavens—the original and principal task of the Cape Observatory, and one that has been arduous. I can say without exaggeration that no man has done more in recent years to contribute to that work than Dr. Spencer Jones.

"Another aspect of the work, of very great importance, is the determination of stellar parallaxes, the distances of stars. This has become of fundamental importance in recent years, for only by the determination of stellar parallaxes can we solve most of the absorbing astronomical riddles which confront us to-day.

"Much depends on the work done in determining the stellar distances and the man who has given us most information in this branch is, I believe, Dr. Spencer Jones, at the Cape Observatory.

"I do not want to flatter him, but I am told by those who know, that no man living has done more in this work which is revolutionising astronomy. The work was begun at our Observatory by our astronomer, Henderson, who was the first man to determine the distance of a star. His work has been followed up until, to-day, the stellar distances of 500 stars have been determined at the Cape.



Dr. H. SPENCER JONES, F.R.S.

"I am baffled at the patience involved in these calculations of infinite space. It must be a learned, able and patient man who undertakes this sort of work. It is work that does not bring dividends, but for those of us who look beyond material values and want to know about the universe, who feel the mystery of life, and to whom Nature makes a profound appeal, it is of more value than all the diamonds of Kimberley and all the gold of Johannesburg. Perhaps, when we do know more, it will be through the work of our Observatory and of Dr. Spencer Jones, together with those men who have worked for no benefit to themselves, but for the advancement of science.

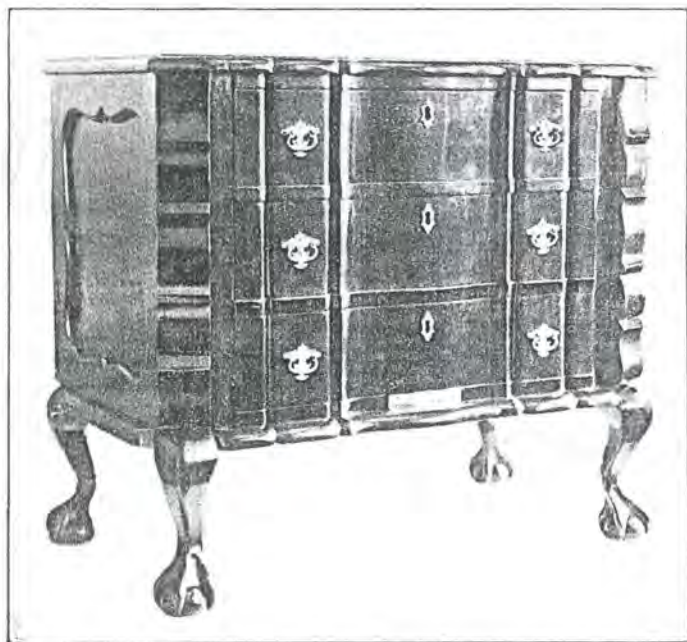
"Another task has been to calculate the distance of the sun—a subject of profound interest, to which several Cape astronomers have contributed. It can only be calculated indirectly, for instance, through spectroscopic observations, or observations of a minor planet. I do not know by which method Dr. Spencer Jones has contributed most, but I know that he has made valuable contributions on all. He has been making special use of Eros, and has taken more special observations of this small planet than all the other observatories of the world. By common consent among astronomers he has been appointed chairman of the Eros Committee: an important post—in fact, I am not certain that it's not more important than the Premiership of South Africa. If, some day, the position of the sun is known with perfect accuracy, it will be largely due to his work.

"It is consoling to know that in South Africa, with its gold booms, depression, and sordid questions, we have men who devote all their energy to the pursuit of scientific truth. There is a scope for scientific investigations here that you have in no other part of the world. Dr. Spencer Jones had a distinguished career before he came to us, but South Africa has given him a unique opportunity which he has used to the full.

"Our wish is that he will go from strength to strength, that he will not be deflected by side-issues, but will keep on the course on which he started and add to his stature and fame as a great man of science. In after years I am sure he will visit us to see how the work here is progressing, and we shall welcome him back to our midst. He will not be able to stay away for ever from the southern heavens and from Eros.

"Both he and his wife have endeared themselves to us in a way that is difficult to describe. He has twice been elected President of our Astronomical Society, showing how closely he has identified himself with us. He has been helpful in the Press, and I am sure I speak for all when I say that our sorrow is tempered with joy and happiness at his promotion. Long may he flourish, long may he enjoy this great life of science. He leaves us with our very best wishes for his future career.

"Your friends here have thought fitting to give you a small memento, a token, all South African, of our esteem, affection and goodwill. We hope that in years to come it will serve to remind you of the very large circle of friends left behind in South Africa who pray for your success."



DR SPENCER JONES, in reply, said:

"I can see that the present was chosen with a great deal of thought, and that it is intended to hold some of my numerous scientific notes. I thank you with all my heart, and on your behalf I thank General Smuts for coming here to preside to-night.

“General Smuts said he was no astronomer, but after listening to his address I have no doubt whatever on that point, and I would be proud if I could address a meeting, say, of botanists with such a degree of knowledge and accuracy. If I had to write an epitaph for General Smuts—which I hope I shall not have to do for many years to come—I could not find a finer one than: ‘Statesman, Philosopher and Scientist.’

“Those of us who were present at the British Association meetings in 1931, and who heard his presidential address, felt his broad outlook and vision in all branches of science, and were proud of the honour to which this country is entitled for producing a man who could take the chair at the most important meeting the Association has ever held.

“General Smuts has referred to the foundation of the Cape Observatory. It was established in 1820 by the British Admiralty to make observations of the southern skies with the primary view of helping shipping. The solid routine and continual work which is the basis of astronomy is due to Greenwich more than to any other observatory in the northern hemisphere, and to the Cape more than to any other observatory in the southern hemisphere.

“One is frequently asked: ‘What is the use of the work done here?’ Some people see no value in anything unless it has some economic purpose. If the post of His Majesty’s Astronomer at the Cape, or of the Astronomer Royal, had been purely utilitarian, I should not have occupied either. Some 40 or 50 years ago my illustrious predecessor, Sir David Gill, had to fight a stern battle with the Admiralty authorities to make them realise that our object was not purely utilitarian. He was successful, and since then the Admiralty authorities have strongly supported whatever branch of investigation we have considered most fitting.

“Although one does, and is glad to do, work of utilitarian value, such as giving wireless time and other signals to shipping, and to the general public, one is glad also to be able to undertake work of great scientific value, the economic value of which cannot be seen at present. The Admiralty and the British Government recognise Greenwich and the Cape Observatory as two most important institutions, whose maintenance on their high standard of efficiency is a matter of national prestige.

“General Smuts has referred to the southern skies as more interesting and important than the northern. I quite agree; they are very much finer and of far greater interest. We have here the three brightest stars, the nearest star, and the most important portion of the Milky Way, and many other points of superiority might be mentioned. I leave them with regret. I believe the conditions here, although not ideal, are far better than in any place in Great Britain.

“General Smuts also mentioned a branch of work that is being carried out here—the determining of the distances of the stars. It is interesting to recall that Henderson, the second astronomer at the Cape, was the first man to determine the distance of a star exactly 100 years ago, and that later Sir David Gill made observations with the heliometer which were the only visual ones that have an accuracy comparable with those obtained to-day by photographic methods. Photography is replacing more and more the visual methods, and no one would think of using the latter to-day.

“The Cape Observatory has been engaged on this work since 1926, when photographic methods were introduced, in conjunction with the Yale Observatory at Johannesburg. In 1926 the stellar parallaxes of about 20 stars from the South Pole to 20 degrees from the Equator were known with accuracy. Now 500 are determined. The Yale Observatory has published the details of 350, and has the material for a good many more.

“It will not be many years before the only two observatories working on this in the southern skies will have determined more stellar distances than all the northern observatories have done in 20 years.

“Another branch of our work has been the determination of the distance of the sun. It is perhaps surprising that so much work and thought has been given to this, but it is because accurate knowledge of the sun's distance is of very great importance to astronomy. Its mean distance is the most important of astronomical constants. Eros is valuable in these observations, first because she is a small planet only 15 or 16 miles in diameter, and gives an impression in a photograph like a star, and secondly, because she approaches nearer to the earth at certain times than any other object. After the efforts made in 1901, and with the additional use of photography, a big campaign was undertaken at the

next favourable opportunity in 1930-31, using all the valuable experience we had gained. On that occasion the Cape Observatory obtained far more observations than any other observatory in the world, sufficient to give valuable information on many fundamental constants. Eros was then more favourably placed for southern observatories than for northern, but at its next visit it will be best seen from northern observatories. So it would seem that Eros intends to follow me!

"But I hope that it will do so in vain, for I believe that we have enough material from the last observations for its next visit to pass unheeded.

"There is one other part of our work in which I have been particularly interested, for it illustrated the co-ordination and dependence between the professional and amateur astronomers. I refer to the discovery by Mr. Watson, who is here to-night, of a new star, Nova Pictoris. These new stars blaze up with incredible rapidity, and fade away; they do not occur very often, and we never know when they will appear. Mr. Watson observed this star on May 25th, 1925, and sent a telegram to me immediately. It proved to be particularly valuable to us, for they blaze up with such rapidity that one rarely has a chance to study them during the process. We learned more in the study of the earlier stages of this star than in any previous new star, and it led us to discover what I believe is the true explanation of what happens at the sudden release of internal energy. The professional astronomer necessarily works in close co-ordination with, and is closely dependent on, the amateur. He has not himself as much opportunity of surveying the skies as an amateur, for his work is concentrated on certain observations, and it has happened that results of great importance have been obtained through amateurs notifying observatories of their discoveries.

"In this Society we have a happy meeting ground between amateurs and professionals. The amateurs are not a strong band, but they are doing very valuable work. I am pleased to have been associated with them and honoured that I have twice been called on to act as their President."