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Maynooth Revisited*

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A few weeks after the end of World War II I was appointed professor extraordinarius of mathematics and mathematical physics at Maynooth. Thus I have been a professor for just half of the present century. My life as professor has been divided equally between Maynooth College and the Dublin Institute for Advanced Studies. I shall be speaking of these institutions and incidentally of three remarkable men whose names are associated with both institutions, namely, Arthur William Conway, Éamon de Valera and Patrick Browne.

I entered University College, Dublin, in 1932 having just obtained an entrance scholarship for which I took chemistry as my main examination subject. Nevertheless I did not choose chemistry in my first year because I believed that the lectures would repeat much of what I had just been learning at O'Connell School and also because chemistry at that time seemed to me to consist of amassing a great deal of fact knowledge. Indeed I doubt whether any member of the chemistry department at University College knew very much mathematics. However I still retained an interest in chemistry, which was stimulated when I learned the rudiments of quantum chemistry from its cofounder Walter Heitler, who was on the staff of the School of Theoretical Physics from 1941 to 1949. Indeed for the past ten years most of my research contacts have been with physical chemists.

I registered for first Arts taking the subjects Latin, Modern History, Modern Irish, Mathematics and Mathematical Physics. The professor of mathematics was H.C. McWeeney, who held the chair a hundred years ago. He was an excellent teacher but to the best of my knowledge he never published a scientific paper. His lecturer was Father M.F. Egan, who wrote some nice expository papers, but it could be difficult for first year students to follow his lectures. The professor of mathematical physics was A.W. Conway but the first year honours class was handed over to Professor W. McFadden Orr, who was a poor teacher. I obtained from him a very imperfect knowledge about the content of mathematical physics. However a Fellow of the Royal Society of London he was a man of international reputation. Many years later when attending the International Congress of Mathematicians at Harvard University in 1950 I heard

Heisenberg lecture on the Orr-Sommerfeld equation.

In spite of my difficulties with mathematical physics I decided to attempt a degree in mathematical science and so met Conway for the first time. He had been born in Wexford town in 1875 and obtained his secondary education at St. Peter's College, where he was a boarder. He had stories to tell of student escapades there and of the strictness of the dean Father Codd, who later became Bishop of Ferns. Two of Conway's first cousins studied for the priesthood at the Irish College, Rome, but one died before ordination. The other is Monsignor W. Shiggins, parish priest of New Ross. Conway entered University College, 86 St. Stephen's Green, Dublin, in 1892 as a resident student. This was the college of which Newman had been rector. It had no power to award degrees but lectures were given there and the students sat for examinations of the Royal University of Ireland, which awarded degrees. In 1897 Conway received the M.A. degree with first class honours. He then proceeded to Corpus Christi College, Oxford, where he remained for five years and with which he maintained a life-long connection. He was appointed professor of mathematical physics at University College in 1901 and continued in that position for 39 years when he became president of University College, Dublin.

It took quite an effort to get used to Conway's style of lecturing. On account of his girth, what he was writing on the blackboard was often obscured. Sometimes he would talk over his shoulder and erase what he had just written before turning round to his students, who were trying hard to keep pace with him. Often I left his lectures feeling quite limp but I gradually developed the habit of consulting several text-books and so filling in the gaps in my notes, so that I would approach his next lecture with the confident feeling that a few days hard work would always bring me up to scratch. One of Conway's students Frank Murnaghan, who later occupied important academic positions in the United States and Brazil and became a world authority on group representations, just listened to Conway. If the going were very hard, he would take a slip of paper out of his pocket and scribble down a few notes. Later in the day he would write out the lecture from memory.

In fact Conway's method of lecturing stimulated students to exert themselves to the full and so acquire a deeper knowledge of the subject being treated. He was the greatest authority of his time on the works of the nineteenth century Irish mathematician Sir William Rowan Hamilton. When he lectured on Hamilton's investigations or on some topic to which he had made a personal contribution, he radiated enthusiasm. For this and for his affability he was admired and respected by his students both as a scholar and a gentleman.

You may know the name of George Johnstone Stoney who was born in 1826 at Kingstown and who in 1874 proposed that electricity, both positive and negative, consists of integral multiples of unit charge. In a paper read to the Royal Dublin Society in 1891 he called the unit of negative electricity the electron. Six years later J.J. Thomson discovered the electron experimentally. This discovery was crucial for theoretical and experimental physics. Conway followed closely the developments in models of the atom and applied his mathematical skill to the investigation, development and sometimes the correction of theories of atomic structure. At the beginning of this century it was generally assumed that the atom is an electrical system having proper vibrations and that the frequencies of these vibrations give rise to the spectral lines of the atom. In 1907 Conway published in the Scientific Proceedings of the Royal Dublin Society a new interpretation of atomic spectra, namely, an atom produces spectral lines one at a time, each single electron in the atom being stimulated to produce a vibration of the frequency corresponding to the spectral line in question. These ideas of Conway were adopted in 1913 by Niels Bohr who combined them with the atomic model of Rutherford his professor in Manchester in order to understand atomic spectra.

As quantum theory and special relativity became known Conway turned his attention to their implications. In 1911 he showed that Hamilton's quaternions are well suited to describe results in special relativity and to lead to new theorems. When Dirac introduced four-by-four matrices to describe the relativistic motion of the electron, Conway showed that these matrices could be expressed very simply in quaternion notation. He also applied Schrödinger's wave mechanics to two-electron orbits. However, much of this time was taken up by

acting as joint editor of the first two volumes of Hamilton's mathematical papers. The first volume on geometrical optics in collaboration with J.L. Synge appeared in 1931 and the second volume on dynamics in collaboration with A.J. McConnell appeared in 1941. I am glad to say that these two collaborators of Conway are still alive and active.

At this stage I would like to mention changes that were taking place in the academic life of Maynooth at the beginning of the twentieth century. We may recall that right from its foundation Maynooth had provided courses in natural philosophy for all its students. In the first decade of this century Irish educational institutions were preparing themselves to take part in the reorganization of third level education in a way acceptable to Catholics. One of the unfortunate consequences for Maynooth of the adaptation of courses to fit in with the university programmes was that natural philosophy was dropped as an obligatory course for all students. On the other hand the link up of Maynooth with the National University of Ireland, founded in 1908, was to provide for the country a clergy of whom the vast majority were university graduates. For this, great credit is due to the foresight and drive of Dr. Daniel Mannix, the most outstanding past president of Maynooth in the present century.

In order to ease Maynooth into the university system certain members of the staff of the 86 St. Stephen's Green college were appointed external lecturers in Maynooth. One of these was A.W. Conway who was appointed lecturer to the professor of natural philosophy Francis Lennon. Father Lennon had succeeded the legendary Nicholas Callan in 1864. When I was appointed to Maynooth, I found that the library did not include a copy of the elements of Euclid though this formed part of the first year mathematics programme. I learned some years later that in the course of a hearing related to the possible entry of Maynooth into a university system it had been objected that Maynooth students had never heard of Euclid and that Lennon retorted "I hope that they never will". Conway had to sit in on oral examinations conducted by Lennon, who could be very formal and sarcastic, and Conway found it difficult at times to maintain his composure. Incidentally Conway used travel to Maynooth on a motor

bicycle, which was then a new means of transport.

Conway lectured at Maynooth from 1903 to 1910. During this period physical theory was progressing at a startling rate and, as we have seen, Conway kept well abreast of the progress and was earning an international reputation. He had been appointed registrar of the new university college in Dublin which was a constituent of the National University and the authorities of U.C.D. wished him to give their college his full attention. However he maintained his friendly relations with Maynooth and his last lecture was given in the Aula Maxima just some months before his death. The subject of the lecture was predictably Hamilton.

When Conway retired from Maynooth his successor as lecturer was his student Éamon de Valera. Little is known about this period of de Valera's life except that he was an unsuccessful candidate for the chair of mathematical physics at University College, Cork. There was a folk tale about a difference of opinion between de Valera and an extern examiner, the brilliant and eccentric Professor Bryan. It was said that Conway locked them together in a room at Maynooth until they had settled their differences.

The next years of de Valera's life were devoted largely to political matters which need not concern us here. It should be noted that de Valera never lost his interest in mathematics even when he was in gaol and thus had limited access to books. In the course of the celebrations in 1975 to commemorate the centenary of Conway's birth his daughter Mrs. May Conan presented to the School of Theoretical Physics a letter written on prison notepaper to Conway from Lewes gaol in 1917. This describes a paper published by an astronomer Drayson on the motion of the pole of the equator round the pole of the ecliptic. Even though he had no reference books at his disposal de Valera was able to give an accurate assessment of Drayson's theory.

I may perhaps be permitted to depart from chronological order and recount a meeting with de Valera which showed his continuing interest in mathematics. When I came on the staff of Maynooth, I found that the teaching of chemistry had been discontinued for some years. During the 1950's pressure came from the

diocesan colleges to have chemistry taken as a subject for the B.Sc. degree. Thanks to the enthusiasm of Professor Michael Casey, who in 1958 nearly lost his life through overwork, it was found possible to start to hold practical classes in a small room in Logic House. However it became clear that a larger and better equipped laboratory was an immediate need, but the College could not meet the expense of this. As dean of the Faculty of Science I decided to put the case for a special grant before de Valera. Through the good offices of his eldest son Vivion, who was a competent physical chemist with a number of research publications, an interview was arranged at short notice. I was received in the Taoiseach's office at 9p.m., where I found de Valera studying Knopp's book Theory and Applications of Infinite Series. De Valera instructed me how I should approach the Department of Education and then we discussed mathematics. The grant for the laboratory arrived in due course.

As an addendum I may remark that the valuable scientific libraries of Eamon de Valera and Vivion are now deposited on permanent loan in the Dublin Institute for Advanced Studies. I may also remark that, as some of you are aware, the Conway family presented to the Maynooth library their father's mathematical books and to the Maynooth museum Conway's insignia as pontifical academician and some apparatus used by Marconi in his radio telegraphic experiments at Kingstown.

Before coming to Maynooth de Valera taught mathematics in Blackrock and Rockwell Colleges. Among his pupils was Paddy Browne from Grangemockler. The Browne family included four children, David who became a Dominican priest and took the name of Michael in the order, Paddy and Maurice who became priests of Dublin diocese and Margaret who married Seán McEntee. My first contact with the family was with David who as Rector of the Pontifical Angelicum University in Rome wrote on my behalf to the Rector of the Royal University of Rome asking him to admit me to mathematical studies without producing all the usual documents that could not easily be sent from Dublin during the last world war. David later became the official theological adviser of Pope Pius XII, prior general of the Dominicans and finally Cardinal in curia.

Paddy Browne graduated in mathematical science at U.C.D. and obtained the D-ès-Sc. degree in mathematics at the University of Paris in 1913. He was also well versed in Greek, Latin, French, German and Irish literatures. He had a prodigious memory. He was very tall and in the words of Father John Hayes, founder of Muintir na Tíre, he looked like a prophet of the Old Testament. He was appointed professor of mathematics and mathematical physics at Maynooth in 1913. In the previous year Dr. John Donaghy had been appointed professor of experimental physics. The National University of Ireland gave Maynooth recognition in the Faculty of Science in 1913 and for almost fifty years the Faculty was to subsist with only two professors.

The three names Conway, de Valera and Browne were to be combined twenty-five years later when the establishment of the Dublin Institute for Advanced Studies was being considered.

So let us move on to 1938. By that time most of the hard feelings that resulted from the civil war were disappearing. A constitution for the state had been adopted and de Valera was Taoiseach. We have already spoken of his interest in mathematics. This interest was equalled by his enthusiasm for the Irish language which he had learned from his gentle self-effacing wife Sinéad. In the summer of 1938, de Valera sought advice from a number of academics on a proposal which he was formulating to establish in Dublin an institute of higher studies. Apart from his interest in Irish and mathematics he felt great concern that the astronomical observatory at Dunsink, in which Hamilton had lived for nearly 40 years, had ceased to function since 1921. In a meeting which included A.W. Conway, Edmund T. Whittaker then at the University of Edinburgh and formerly director of Dunsink Observatory and George D. Birkhoff of Harvard University, de Valera was advised that the Irish climate is unsuitable for observational astronomy and that it would be better to concentrate on theoretical science. de Valera was aware that Erwin Schrödinger, creator of wave mechanics and then living in Graz, was in trouble with the Nazis and he began to consider whether Schrödinger could be engaged as a member of a mathematical school of the projected institute. The story of how de Valera

contacted Schrödinger is graphically described by Anny Schrödinger:

When my husband got the very honourable call to Berlin in 1927 as successor to Max Planck he said to me: "I don't know what is going to happen but I have the feeling that I am not staying in Berlin for decades." Planck held the chair uninterrupted for 40 years. My husband's feelings were right. In the summer 1933 we left Berlin for good and went to Oxford. Three years later in 1936 my husband got a call to Edinburgh and at the same time another one to Graz (Austria). It was rather difficult to choose, the decision fell on Graz. We gave up our nice little house in Oxford and moved to our house in the country. It never occurred to us that this step might turn out to be rather foolish, even dangerous. Many of our friends shook their heads and soon we understood their attitudes. In March 1938 Austria was invaded. Although my husband got several "invitations" to foreign countries, he was not allowed to accept them. It was more than unpleasant to watch the situation in our beloved country and especially in Graz, which was called "Stadt der Volkserhebung". Of course we wish we could leave Austria —— but legally it was impossible so we had to stay and wait....I spent most of the time in Vienna with my dear old mother and only came to Graz for short visits. On one of these occasions we got a letter from my mother with an enclosed slip of paper, a tiny slip not more that 4x5" with a few lines handwritten by somebody we did not know, approximately running like that: Mr de Valéra intends to create an Institute for Advanced Studies. Would you be principally prepared to take up a post there. No signature — nothing. A Dutchman on a visit to Vienna came to see my mother and told her about Mr de Valera's intention. As we were both in Graz my mother asked the Dutchman to write down this important information and he did so on a little piece of paper.

Now I will tell how this important slip of paper came into existence. Mr de Valéra was discussing the idea of an Institute with his friend Professor Whittaker in Edinburgh. Professor Whittaker was quite enthusiastic and thought it might be a good idea to start with theoretical physics as this discipline would not be so expensive and there might be a chance to get

Professor Schroedinger who certainly can't be very happy in Austria under the present political situation. Mr de Valéra agreed. But now arose the very difficult question how to get in touch with Professor Schroedinger?
Mr de Valéra knew that it might be dangerous would it have been known that my husband is in communication with a foreign country. At this time letters were usually censored. This was the way how it was done: Professor Whittaker spoke about Mr de Valéra's plans to his colleague Professor Max Born who then wrote to our common friend Professor Richard Baer in Zürich. Professor Baer asked a Dutch friend who just happened to go to Vienna to try to let my husband know about Mr de Valéra's plans. As we were not in Vienna he went to see my mother, wrote the few lines down and was gone again. When we received the letter with this important little piece of paper we were speechless. We read the few lines over and over again — then we put a match to it and burnt it. A fortnight later I sat into my car and went to Konstanz (on the lake of Constance) which is near the Swiss border. There I met our friends Professor Baer and his wife. I thanked them very much for the most discreet information and asked them to let Mr. de Valéra know my husband's definite answer "Yes". Baers went back to Zürich, they wrote to Professor Born, Professor Born told Professor Whittaker and Professor Whittaker told Mr de Valéra — nothing more happened. The summer came and we went on holidays. Towards the end of August I spent a few weeks with my mother in Badgastern, there I met my husband near Salzburg and we went back to Graz in our car. On our arrival there we found a note in our letterbox that we should collect a registered letter from the post office. The letter contained only a few lines not more than 2 or three: my husband was dismissed. We were not at all sorry, our only thought was to leave the country as quick as possible. At that time Italy was the only country which could be reached without a visa. We left everything behind, we packed 3 suit cases and three days after receiving the official letter we went off to Rome. As my husband is a member of the Papal Academy we could not have found a better place for the first days of our voluntary exile! The Academy building is most beautifully situated in the midst of the Vatican gardens. From here my husband wrote a

letter to Mr de Valéra who happened to be in Geneva as President of the League of Nations. Forty-eight hours later the Irish Minister to the Holy See very kindly asked us to come to the Legation. We had a telephone call from Mr de Valéra, who, after receiving the letter wanted to speak to my husband over the telephone. Mr de Valéra also gave instructions to his Minister to provide the necessary visas for us and to help us in any way to leave the Continent for England as quick as possible with a short stay in Geneva. It took only five days and then we were ready to leave Rome....We happily reached Geneva and felt like in paradise when we arrived at the Hotel de la Paix. Although Mr de Valéra had to take part in an official banquet in the evening he received us and we were overwhelmed by his kindness and the way he talked to us like an old friend. The next day he had several discussions with my husband, but as the political situation at that time was very critical, the danger of war iminent, Mr de Valéra was anxious to get us to England as soon as possible.

On our journey through France the atmosphere was very excited. In London we heard the news that the Münchener-Konferencz will take place and that prevented the outbreak of a war at least for the very near future. We found refuge in Oxford. In November my husband visited Dublin. It was clear that it would take some time before the Institute could be started. Meanwhile my husband accepted an invitation to Belgium as a guest professor. The summer months we spent on the Belgian sea-side in La Panne and there we still were when the unfortunate war broke out on September 1st 1939. In the first week of October we got the letter from Mr de Valéra asking us to come to Dublin at once. On October 7th we arrived in Dublin where we then spent 17 years — the longest period in my husband's academic career — happy and most thankful to Mr de Valéra.

As a result of his discussion with Schrödinger in Geneva de Valera decided to take steps to establish his institute of higher studies. Since the institute was not yet founded when Schrödinger arrived in Dublin, it was necessary to find for him temporary employment. He was invited to deliver a set of lectures on quantum mechanics at University College, Dublin, where Conway was still

professor of mathematical physics. In the meantime Conway had become Ireland's first member of the Pontifical Academy of Sciences. At this time Conway was also President of the Royal Irish Academy. Then on the proposal of Conway the Royal Irish Academy took an unusual step; it appointed Schrödinger a professor of the Academy. A few years earlier he had been elected an honorary member. He was in fact a very loyal member and a large proportion of his scientific publications are to be found in the Proceedings of the Academy.

The Dublin Institute for Advanced Studies was founded in 1940 with the two schools of Celtic Studies and Theoretical Physics. The title "theoretical physics" rather than "mathematics" was chosen on account of Schrödinger's main field of research. Schrödinger was appointed senior professor. It had been intended that Conway and Whittaker should also be senior professors, but Conway had accepted the presidency of University College, Dublin, and Whittaker felt that he could not leave Edinburgh since World War II had already begun. However Conway became the chairman of the Governing Board of the School of Theoretical Physics and the student of both de Valera and Conway, the polymath Paddy Browne, was suitably appointed chairman of the Council of the Institute.

The first colloquium of the School of Theoretical Physics was held in July 1942 and had an attendance of forty-five persons confined to residents of Great Britain and Ireland on account of wartime restrictions. The topic for the colloquium was the combination of relativity and quantum theory. The chief speakers were Sir A.S. Eddington and Professor P.A.M. Dirac, each of whom delivered five lectures. Maynooth was represented by Professors P. Browne and P.J. McLaughlin. Among the social events there was a very enjoyable reception hosted in Maynooth College by Professor Browne. Unfortunately nobody asked those present to sign the visitors book.

In 1945 Professor Browne became president of University College, Galway. Within two years the influence of the School of Theoretical Physics was to be seen in changes made in the Maynooth courses of mathematics and mathematical physics. In particular one full year of the undergraduate course in mathematical physics was devoted to relativity and quantum theory. This was at

a time when courses in quantum mechanics were available in very few British universities. In 1946 J.J. McMahon enrolled as Maynooth's first postgraduate student in science. He was later to be the first student of any college of the National University of Ireland to be awarded the Ph.D. degree in mathematical science by the N.U.I. .

As a result of these developments students of Maynooth started to apply for and were awarded research scholarships in the School of Theoretical Physics. The earliest scholars were

E. McMullin (Raphoe)	1949-1950
J.J. McMahon (Clonfert)	1950-1952
P. McHugh (Ardagh)	1955-1957
C. Ryan (Ardagh)	1959-1961
J. Spelman (Achonry)	1959-1961

McMullin's chief interest is in the philosophy of science. On leaving Dublin he went to the University of Louvain, where he obtained a doctorate in the Faculty of Philosophy. He then obtained a teaching position at Notre Dame University, Indiana, where in due course he became chairman of the Faculty of Philosophy and a well-known figure at conferences which he attended or organized. He now occupies a personal chair at Notre Dame.

J.J. McMahon went from the Dublin Institute to Stanford University, California, where he worked with Szegö. He later took up a temporary position in the department of mathematics at Fordham University, New York. He returned to become the first professor of mathematics at Maynooth when finally the chair of mathematics and mathematical physics was divided into separate chairs of mathematics and of mathematical physics.

The two talented Ardagh students Pat McHugh and Ciaran Ryan died tragically, one at the River Shannon and the other in the mountains near Geneva. Before his death Ciaran had already built up an international reputation in elementary particle theory, especially in the theory of weak interactions of

elementary particles.

Finally I believe that Joe Spelman needs no introduction to this audience.

The connection between Maynooth and the School of Theoretical Physics initiated by Professor P. Browne has been maintained over the years. Most of the Maynooth mathematics and mathematical physics staffs are research associates of the School. This gives them access to the library and xerox facilities, a place to work when they are free from academic duties and an opportunity to discuss their research with members of the School. Staff members and students of Maynooth also participate in mathematical symposia and attend seminars, lectures and special courses run at the School.

On looking over a recent Maynooth Kalendarium I discovered that eight members of the teaching staff are doing the work that I had to do unaided when I was appointed professor of mathematics and mathematical physics in 1945. I would like to indicate the initial steps in the process of the expansion of the Maynooth staff. In the late 1940's the University Colleges of Dublin, Cork and Galway were beginning to expand their staffs. Now Maynooth had never received any subvention from the state for providing university education. In fact some people thought that the state could not legally grant such a subvention. However when the Taoiseach John A. Costelloe was approached, he was found to be most helpful and so began the annual grant to Maynooth. Once government funds became available the Academic Council submitted proposals for a moderate increase in the teaching staff. After some delays the episcopal trustees agreed to establish lectureships in early and medieval Irish and Welsh, in mathematics and in modern history.

At this period the undergraduate students consisted of candidates for the priesthood destined to serve in Irish dioceses. In 1950 two students from Ushaw College, Durham, England, came to do a degree in science. They were nominated by the Bishop of Ferns, Dr. James Staunton, and were technically students of Ferns diocese during their stay in Maynooth. One of them, Alec Barrass, later presented an excellent thesis for th M.Sc. degree which comprised original research that was published in the Proceedings of the Royal Irish Academy.

The practice of sending Ushaw students to Maynooth for sciences degrees continued as long as I was on the staff.

In the early 1950's it was realised that it would be difficult to increase the academic staff to an acceptable level without having a massive increase in the student population. It was suggested that the missionary society of St. Columban, which was founded from Maynooth, might be interested in sending theological students to Maynooth. There was even a whisper that perhaps some day Maynooth might admit non-clerical students and that the academic facilities in the N.U.I. departments might thereby be improved. However at that time it would have been unrealistic to expect the bishops to accept such a proposal.

In 1960 the Minister for Education Dr. P.J. Hillery established the Commission on Higher Education to consider the planning on a national level of third level education. Invitations to make submissions were sent to the Trustees and also to the Academic Council of Maynooth. The latter in June 1961 sent to the Trustees a proposed submission with the request for leave to send it to the Commission. The submission contained the following three proposals:

1. That Maynooth should claim the status of a constituent college in a federal university;
2. That the various Faculties be developed in scope by making Maynooth an open ecclesiastical centre for university studies;
3. That further financial aid be requested from the State — to be applied to such purposes as travelling studentships, sabbatical leave, attendance at conferences, employment of professors from outside, laboratories, library.

There was no reply from the Trustees. Things dragged on for five years, during which other institutions had been pressing their claims on the Commission. Finally in 1966 meetings of the whole staff under the chairmanship of the president Monsignor Mitchell were held to prepare a new submission to the Trustees. The submission is fairly long and so I shall content myself with

quoting the last paragraph:

> We would therefore recommend to the Most Reverend Trustees that they issue a public statement declaring that they wish to make Maynooth an open centre of university studies in all faculties, that they intend to improve the academic facilities in both the secular and the sacred sciences so that they will be adequate to implement the decrees of Vatican II in respect to clergy, male and female religious, and laity, and that a special function of the new Maynooth would be to harmonize present-day culture with the Christian faith: that they establish a small working committee composed of persons experienced in educational matters, that this committee report to the Trustees on questions connected with the expansion of Maynooth, and that a preliminary report be required for the October meeting.

These recommendations were substantially accepted. A public statement embodying them was sent to the press and received great publicity in the national newspapers. The statement read as follows:

> The Second Vatican Council has called for the development of Catholic university facilities, especially in the sphere of philosophy and theology, in order to show the harmony of Christian teaching with true human culture and scientific development, and to provide all priests, religious and laity with the fullest opportunity of Christian formation. The Irish bishops at their June meeting have had under consideration how this development could be secured in this country and propose to develop Maynooth as an open centre of higher studies and to extend its facilities and courses so as to meet the requirements not merely of priests, diocesan and regular, but also of brothers, nuns and laity. They

have appointed a committee to advise them on the best means of implementing this proposal.

The statement clearly embodies one of the most important decisions ever made with respect to Maynooth College, and may I point out that the 25th. anniversary of the statement occurs next June. The statement was made just in time to be incorporated in the report of the Commission on Higher Education. An unusual feature of the advisory committee was that it contained no bishop and one layman P.J. Masterson. The committee worked very hard and produced a substantial report for the October meeting. While a certain amount of the report is rather dated, I would think that members of the present academic staff would find much of interest in the report and in comparing present-day Maynooth with what was being projected in 1966.

The first move in making Maynooth an open centre occurred in October 1966 when both male and female students were admitted to the courses for the Higher Diploma in Education. At the same time I was appointed the first registrar of the College.

With regard to the objective "to show the harmony of Christian teaching with true human culture and scientific development" we may note that in the course of his address to the last plenary session of the Pontifical Academy of Sciences, which had as its theme Science in the Context of Human Culture, Pope John Paul II stated that for the Church nothing is more basic than knowing the truth and proclaiming it. His Holiness encouraged the Academy to develop its activity in two directions, namely, the pursuit of specialized studies and the interdisciplinary opening of research. He also recommended the Academy to continue its collaboration with pontifical universities and cultural institutions. Already on the occasion of the tercentenary of the publication of Newton's Principia, which was celebrated a few years ago by a conference held at Castelgandolfo, His Holiness had written a letter to the conference setting out the position of the Church with regard to collaboration of religion and science:

> Both religion and science must preserve their autonomy and their distinctiveness. Religion is not founded on science nor is science an extension of religion. Each should possess its own principles, its pattern of procedures, its diversities of interpretation and its own conclusions .... . While each can and should support the other as distinct dimensions of a common human culture, neither ought to assume that it forms a necessary premise for the other.

Maynooth is a pontifical university and it is also a recognised college of the National University of Ireland. According to the N.U.I. charter the recognition of the College may be withdrawn at any time by the senate of N.U.I. . In the 1960's several proposals were made for the reorganization of the university system. The Commission on Higher Education recommended that N.U.I. be dissolved and that its Dublin, Cork and Galway colleges be established as independent universities. Then the Minister for Education Donough O'Malley announced his plans to unite U.C.D. and Trinity College into a single university. The 1966 advisory committee having outlined a plan for the expansion of Maynooth concluded with the statement:

> If the (Maynooth) university is developed to the extent described above, it will be entitled to a status higher than that of the present St. Patrick's College. Thus, if the National University continues, Maynooth should be a constituent college and, if the National University is dissolved, Maynooth should become an independent university.

When I was on the staff here, I used often think about how Maynooth might develop in the future. I saw it becoming an institution with a student population of about 5,000 and having a wide range of subjects, but excluding Faculties like Medicine or Engineering which would be too expensive to maintain. I was appointed to Maynooth on 9th. October 1945, the day on which the sesquicentenary of the foundation of the College was being celebrated. Let us hope that the bicentenary year will find in Maynooth an internationally respected university and research centre that does credit to both Christianity and the nation.