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THE MADRAS CHRISTIAN COLLEGE MAGAZINE

Vol. XXVIII, No. I

November 1958

College Report, 1957-58*

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MR SUBRAMANIAM, LADIES AND GENTLEMEN,

It gives us great pleasure to welcome the Minister for Education to our College Prize-giving. In this College we have only two big annual events. Towards the end of the year we have a Commemoration Service, at which as a College we recognize our responsibility to God. Now, at our Prize-giving, we take the opportunity in an annual report to acknowledge our responsibility to the general public, which is represented for this purpose by the Minister for Education. We have been trying to get Mr Subramaniam to our Prize-giving ever since he took office, but so far something has always hindered. We are glad that our bad luck has broken.

When the Minister for Education is also Minister for Finance, and when the staff of a college get him firmly fixed in a chair before them, they are tempted to present a schedule of needs, perhaps of grievances. I can reassure Mr Subramaniam that he is safe. We have found over the last few years, that when we present our accounts at the proper time and in the proper way, we can count on getting, not what we want, perhaps not even what we deserve, but our fair share of the funds available. And we don't ask for more than that ; we don't want to jump the queue.

With the Prize-giving we associate two other annual functions, the At Home to our new graduates, and the meeting of the College Day Association. We have therefore some distinguished Old Boys with us, from very old indeed to new-born, and I am glad to welcome, as representing all of them, Mr Justice Basheer Ahmed Sayeed and Mr K. P. Ramasami.

The Report begins on a happy note. No senior members of staff have left us this year ; and we have a new Professor in Dr C. T. Krishnamachari. He was a student of this College, one of three brilliant brothers, and has been on the teaching staff since 1940. When the Council appointed him it was rewarding faithful service ; but it was also welcoming a scholar whose name is known, not only all over India, but also, through his learned papers and through correspondence, in the United States and in Great Britain.

On the other hand, two of our most promising young lecturers, Mr P. G. Muralidharan in English and Mr P. B. Krishnaswamy in Economics, have gone to the Indian Administrative Service. I remember a lecturer leaving for the same reason a few years ago ; a born teacher, keen on his subject (which was Zoology), happy both with his students and with his colleagues, but unable for family reasons to live any longer on a lecturer's salary ; when he shook hands as he went away, he held on to my hand and said, with tears in his eyes, ' Isn't it a shame,

* Presented by the Principal at the Annual Prize-giving, 20 August 1958, at which Sri C. Subramaniam, Minister for Finance and Education, presided.

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sir, that they don't make it possible for a man like me to go on teaching?' I promised that I wouldn't ask Mr Subramaniam for money, but I hope that he will remember that story.

At the same time we had to say goodbye to Mr Venkatarama Bhat, a temporary lecturer in Kannada, and to the Kannada Department too. Kannada has brought to us in the past many of our brightest students and many of our most loyal Old Boys; but we have to branch out in so many ways now, that we must draw in where we can; and it happened to be possible here. And we still have some good Kannada students, masquerading as Hindi-speakers or even as Frenchmen.

Of the many new appointments, I won't name those who have already served temporarily or on probation. The newcomers are Mr F. R. Stanley in English, returning to his own College after a varied experience outside; Miss Malathi Rangaswamy in French, fresh from two years of higher studies in Paris in which she distinguished herself; Messrs Vaikuntan and Joseph James in Economics; Mr Franklin John in Mathematics; and Messrs Alexander Samuel and T. Devanathan in Chemistry. The Tutors and Demonstrators play an important part in our studies, and in other activities, but there are so many this year that I can't even read their names.

Nowadays we have to report annually on the members of staff who are studying abroad. Mr T. K. Thomas is back from Chicago, without a noticeable Chicago accent. Mr Chandran Devanesen has to return from Harvard next month, though his thesis is still growing; Mr Raja Chelliah hopes to be with us in November, with a Pittsburg Ph.D. in his suitcase. Meanwhile Mr and Mrs Siromoney are in New York for a year, she to study mathematics and he to study theology, not together but within reach. Mr C. T. Kurien set sail on Independence Day to go farther and stay longer, Stanford University in California for two or three years. And in a few weeks Mr K. Subrahmanian goes for a year of language study in Nottingham, England. And our Bursar, Mr Rajaiah D. Paul, is at present in Denmark, not for further studies but as a member of the Executive Committee of the World Council of Churches. For a few days, we shall have seven members of staff on or beyond the black water. No doubt overseas scholarships are good things, but a bereaved principal may wish that they could be spread out more widely.

Our achievements in the university examinations of March-April are partly good, but we are represented in the September examinations as well. For the Pre-University we sent up 219, and 146 passed, i.e., 67 per cent. On the other hand, 28 of the 146 passed in the First Class and 71 in the second; that is, 99, nearly half the total number, achieved some distinction. In the B.A., with 70 candidates, we did quite well as the B.A. goes, with 47 (67 per cent) passing completely. For the B.Sc. 103 tried, and seven failed. Of the 96 passes, 19 were Firsts, 58 Seconds, and 19 Thirds. It seems to me that when there are three classes in an examination, if the students, the teachers, and the examiners, all do their work properly, the candidates should practically all pass, half of them in the second class and a quarter each in the first and third. That doesn't often happen in Madras, but our B.Sc. results this year are near it. I should add that in Chemistry all passed, with more Firsts than Seconds, and no Thirds. In the B.A. Honours in Arts we had only four Firsts, one fewer than the number recommended for ordinary degrees, and I don't think that that has happened before. But of the rest there were 36 in the Second Class and only 33 in the Third, and that is something. And one of our 'recommended' students cannot be written down as a failure, for he is totally blind; he sat after the usual three years, and his papers, which he had to dictate to a clerk in the University office, were valued on the same standard as the others. E. V. Joseph is to be congratulated. I will be candid, and confess that in the M.A. exam. in Arts we had 22 Thirds, 20 Seconds, and no Firsts, out of 75 who appeared. I hurry on to the higher examinations in Science. There we had no failures. In Honours, four Firsts, nine Seconds,

and one Third, poor man; of five postgraduates, two Firsts, and three Seconds. And we won six University prizes.

In games as usual we contented ourselves with being good all-rounders instead of fanatical pot-hunters. In the ordinary inter-college tournaments we won only one trophy, in Volleyball; but we finished near the top in most of the games, and our footballers ran up the winners both in the League and in the Knock-out, besides winning the Freedom Struggle Centenary tournament and the Annamalai University tournament. Volleyball also won a centenary trophy. We provided three of the University captains for the year, in football, basketball, and volleyball (the basketball team turning out all-India champions); as well as about 17 University players for seven different games. We had almost won the inter-collegiate boxing when the meeting broke up in disorder. We had four University boxers in our team.

But tournament matches are not the only games we play. Our College Sports, run on team rules and inter-Hall, make first-rate teams even out of second-rate athletes. The Sports were unusually interesting last year, when St. Thomas's Hall, because their B teams came fourth in both the relay-races, won by the skin of their teeth at the last moment. Perhaps it is as well that I was on furlough at the time, for I might have given myself away. I try in these matters to practise a dynamic neutrality, but I was a St. Thomas's man once. I was also once—very long ago—a Selaiyur man, and I am glad that at the Sports the third team finished neck-and-neck, instead of jogging along dispirited and far behind. And Heber conceded the shield, after eight years, very gamely.

And I think the Minister might have taken away a better impression of the College if, instead of gracing our Prize-giving, where I suppose we look rather like any other college, he had come, on an ordinary Wednesday afternoon, to the playing-fields instead of to the Anderson Hall: he would have seen 250 Pre-University students, and after them 150 Class I students, enjoying themselves thoroughly in the fresh country air, on wide green fields belted with lovely trees; he would hardly have realised that these were students qualifying for a degree.

The College Contingent of the National Cadet Corps had a good year, with four officers (two of them Captains) and 154 Cadets on the roll. In the Inter-company competitions of the year they won three out of four general trophies and the shield for all-round efficiency. One of our cadets was the best shot of the battalion. Of those who tried for Certificates, 80 per cent won the 'B' and 100 per cent the 'C'.

The Rural Service League worked on the same lines as before, concentrating on Old Tambaram with branches elsewhere, and with squads for adult education, manual labour, and medical work, and with a weaving-centre. The Elementary School turns out many pupils who go on to the High School and do well there, a few proceeding to College. The manual labour (which took the form of making a well) was shared for a few days by student-visitors from California. Another piece of good work in which the College is concerned, through its Student Christian Movement, is a vigorous Leprosy Clinic at Pammal, near Pallavaram, and there too practical help came from abroad; twenty students from different countries settled down with our own for two weeks of the Christmas vacation, and started work on a new building for the twice-a-week dispensary.

The other societies went on as usual, some busier than others. Our debating team, led by a woman student, distinguished themselves even on the inter-university level.

This year, as last, a College report cannot confine itself to college matters; I must say something about the reorganisation of the University, as it is seen from within one College.

Change usually involves some loss, whatever the gains may be. For myself, I deeply regret the coming disappearance of the three-year Honours course. As I look back over my work, three things especially stand out as things to be thankful for. The first is the worship and religious study of the College, which to me gives meaning to everything else. The second is the day-to-day life of the Halls; the more I see of it, year after year, and the more I talk with old students, the more sure I am that here we have something very good indeed. The third is, or was, the Honours teaching. A small class, not more than twenty or twenty-five, meeting one another and their four or five teachers regularly, dealing with one big subject, and with no examination to face for three years; it has been a joy to watch these young people, or some of them at least, get a shape, put on mental muscle, take root downward and bear fruit upward. That is what I mean by liberal or general education: you cannot study a big subject in this way, whatever it is, science or arts, without learning a good deal about everything else that matters; at least if you are in a college in which other people are studying other subjects in the same way. There will be nothing in the reorganised courses quite like that. Room could be made for it: one year of general studies, a three-year Honours course, and one year post-graduate for those who want it or must have a 'higher degree'. But that proposal must wait till the present plans are worked out and we have got our breath back. We are still in the thick of things. Meanwhile the new course is taking shape, apart from the M.A. and M.Sc. courses, which have just made a very late and rather ragged start. And most college people are less worried and confused than they were a year ago. Gaps are filling up, thanks partly to those whom we inelegantly call split-inters; the wild rush out of arts into science, which threatened us with a generation clever at the manipulation of matter but most ignorant about man, seems to be slowing down. The stream of philosophy almost dried up, but a trickle has re-appeared. For the time being we must concentrate on science; the needs of the hour, and likewise the fashions of the moment, both demand it. In this College, with help from the Government of India under the Second Five Year Plan, we have started advanced courses in Physics, Chemistry, and Zoology, and also in Mathematics (which now calls itself a Science); we hope to add Botany in due course. And with the teaching of science carried on in a rather broader way, especially in a college where post-graduate and research work goes on side by side with undergraduate teaching, there is no reason why the study of science should not be as liberal and humane as the study of the traditional arts subjects at its best can be. Our best hope is that our scientists, if I may so put it, will themselves become more humane, and will ask for a better balance between old and new, to the enrichment of our common life.

And I feel that I should repeat what I said last year. We must not rest content with reforms on paper. It was nearly ten years after India became free when we woke up to see that our universities are capable of improvement, and badly need it. For two years now, our attention has been concentrated on the kind of change that can be brought about in offices and by committees; the ordinary teacher and the student wait for new life to be handed out to them in wads of cyclostyled foolscap. You cannot tell how good a university is by studying the statutes, ordinances, regulations, syllabuses, and text-books, or even by asking what research is being done. The most important person in the University is the ordinary undergraduate; and the question that matters is not what is happening *to* him, but what is happening *in* him. Is he learning to discipline himself, because he has found that life is not satisfying without a large purpose freely chosen? Is he learning to discern for himself what is true and good and beautiful, and to love it for its own excellence, and to hate the opposites? Is he learning how to get on with other people, and to recognise and appreciate virtues and interests different from his own? And as he acquires these three habits—of steady work, disinterested judgment, and active sociableness—is he also looking beyond his immediate surroundings and his daily occupations? First, is he considering the present day needs of his country, and indeed of the world, in the hope that he may help where help is most needed? Second, does he always remember God the Creator, Ruler, and Judge? Those are questions, Sir, that only the undergraduate himself can answer in the end; but meanwhile perhaps teachers and ministers of education can help a little.

Obituary

V. CHAKKARAI

Three events determined the career of Sri Chakkarai: (1) his education in Madras Christian College, (2) his conversion to Christianity, (3) his entry into the field of labour.

Education and upbringing

Sri Chakkarai was born in a middle-class Beri-Chetty family in Madras. His father Kesava Chetty was a banker of a sort. His mother Andalammal had the training of her children on her hands. They had one daughter and four brothers. Chakkarai was the fourth. The expenses of their education were met with the money left by the maternal grandfather. The family was Vishnavite in faith. The religious atmosphere was one of customs and festivals—operating mostly indirectly by suggestion but rarely directly.

The Beri-Chetty community of Georgetown were traders who in the unsettled times of East India Company settled round about the Fort for safety. They mostly occupied Thumbu Chetty and Linga Chetty Streets. The house-names of many families indicate that they came from districts round about Madras. The street names record cryptically the history of Madras and these two streets tell us the history of Beri-Chettys in Madras. The Tamils of South Madras cluster round about Mylapore temple while the Tamils and Andhras of North Madras centred round the Fort. This shows how Madras passed through from peaceful to troubled times. Vengal the house name of Mr Chakkarai seems to be a village in the present Chingleput District.

Into this locality came by Providential design the missionaries of the Presbyterian Church of Scotland and established English schools. This was a profoundly significant event. Already captivated by western culture and unmoored from the past, the community had no hesitation along with others in taking advantage of more new institutions. The Chetty families of the two streets are among those who responded to the call whole-heartedly, so much so we find hardly any members of this community pursuing their ancestral professions. They all became officers or clerks or have taken to learned professions. By the time Mr Chakkarai attained school age, these tendencies became so natural that he was sent to Rajagopal School first, and Christian College High School next, as a matter of course.

Sri Chakkarai was one of the brilliant students of his day. In the High School he jumped by double promotions. A class mate of his in the 4th standard had to go away to Burma for four years. When he came back he found his friend in the College. Surprised he asked how he managed it and the crisp reply was 'double promotions'. He was always among the first three in the class, often the first. He invariably figured in prize distributions and received ovations.

In the High School his classmates were mostly drawn from Madras but in the College he was in the midst of the pick of the districts. He had to make his mark against students of high caliber. His college mates, not class mates, were Sri R. V. Krishnan one year his junior and Sri Ramalinga Reddy one year his senior. His class mate Sri Venkataraman rose to the position of Accountant General of the Government of Madras. Sri Chakkarai was the recipient of the Mathai Prize (F.A.) 1899, Gunn Medal (B.A.) 1900, Dr Miller's Gold Medal (B.A.) 1901. His university achievements were not so good as his college results. He passed Matriculation, considered to be a tough test, in the first class, in F.A. and B.A. got a good second. Mr Venkataraman tells me he was considered to be a good debater, and was always discussing religion with his chums during lunch intervals.

Conversion

Mr Chakkarai received baptism in 1903, two years after he left the College. The Christian College was primarily an educational institution and was not evangelistic of set purpose. It was the example of the professors and not the Bible classes that attracted students to Jesus. Of the professors two are outstanding in this respect—Rev. John Anderson and Dr Miller. Dr Miller was a legend and household name in Madras. He had a large heart and sincerely loved Indian students. Jesus was in him manifesting himself in a life of love and self-sacrifice. He did not attack Hinduism but attracted it. Almost all the Chettys who accepted Christ—there were not a few—did so because they saw Jesus in Dr Miller.

There are converts of different types. A psychological study of 'conversion' remains to be made. There are Hindus who back out of Hinduism and fall into the arms of Jesus; others set out on a pilgrimage to Christ leaving Hinduism behind. Some converts fight Christ before they yield to him—some surrender to his charms at the first sight, some win Christ after struggle and turmoil, some rest on his bosom quietly; some are twice born, some—once born. Sri Chakkarai followed Christ out of sheer attraction to him. He had no quarrel with Hinduism and did part from it. He told me that he had no clear sense of sins—an experience of many converts. He was not sin-propelled to Christ. Christianity was an adventure—a gay adventure.

The Beri Chetty community had one peculiarity. It did not formally excommunicate converts. They were free to live and marry in the community, though they might not be invited to orthodox functions. If Sri Chakkarai had no struggle with sin, he had no wrench from the family and dear ones. This had a remarkable effect on his Christian outlook. He never felt alienated from Hinduism. If Christ was his father, Hinduism was his mother who led him to Christ. This also accounts for his attitude towards Hinduism. It was not something he had to escape from. It was his nurse and school master that led him to Jesus. His attitude to Hinduism was akin to St Paul's attitude to Judaism, only somewhat more emotional. His experience was not spasmodic and cataclysmic. He did not pass from darkness to light but from dawn to noon-tide.

These two features: an attachment to the risen Christ rather than to the cross—in heart though not in mind—and a filial attitude towards Hinduism are Sri Chakkarai's contributions to Indian Christianity.

Labour Leader

Law was not Sri Chakkarai's vocation though it was his profession and a means of livelihood. He was pre-eminently a man of ideas—a leader in the thought world. Sooner or later a convert faces the problem—how shall I serve the Lord? Two paths open in Traditional Christianity; the Ministry and Missionary preaching. A third path appeals to the convert who is a layman—work in the Lord's vineyard—which extends to the whole secular world. That vineyard was labour for Sri Chakkarai. He planted the seed and watered it. He watched it grow and made it a power. Labour was his vocation. He dedicated his life to it. He entered Municipal councils and the Legislative Assembly to serve labour. He was the founder and leader of the labour movement in Madras. He took Jesus with him into this field. He brought all the incentives of zeal and enthusiasm to bear upon his services to Trade Unions. Mr Chakkarai was the gift of Jesus to the Trade Union Movement.

His many friends will miss him in many fields of activity. He was a champion of flaming causes and a fighter for ideas. He loved his Jesus above Church, tradition, ancestral faith and culture. A faithful servant of Jesus, his is the reward of welcome from his Lord, and gratitude from his countrymen.

P. CHENCHIAH.

BHARATAN KUMARAPPA

Professor of Philosophy, Madras Christian College, 1926-1928

In the year 1914 which was to be so fateful in the history of the world, a lanky youth with prominent features and a shy manner enrolled in the Madras Christian College Intermediate Classes. He was Benjamin Ebenezer Cornelius, the youngest son of Mr S. D. Cornelius of the P.W.D. who himself had been one of the great William Miller's 'boys'. He had come to college with a great reputation having been a good student at Doveton College, and having won several prizes for English and Latin.

Named Benjamin because he was the twelfth child, his mother found in him a true 'son of consolation' (for that is what Benjamin means). His was a sensitive soul: he was easily moved to pity and compassion at hardship and poverty and to indignation at injustice. Even as a child he could not bear to see others chastised or abused in a day when that was the common lot of children. There was a special bond between his saintly and gentle mother, full of pity for the poor and the spirit of sharing and sacrifice, and this son who seemed so much like herself in his sympathy, consideration and self-sacrifice. Hers was a double influence upon him, both inherited and nurtured.

He brought to his work at the Madras Christian College not merely intellectual ability and gentleness of nature, but a real interest in the Christian religion, especially in the study of the Bible. A hardworking and methodical student, he secured a first class in the Intermediate Examination and opted for Philosophy Honours Courses under some of the most famous professors of the time. Philosophy in those days drew the best in both teachers and scholars. Benjamin Cornelius and S. J. Theodore were the Christian students who made most impression in their time—and who were special favourites of Dr A. G. Hogg. In fact Dr Hogg was one of those who really fathomed not only the intellectual keenness and ability but also the Christian spirit and innate nobility of character of Cornelius, with the result that his influence on his student left a permanent impression in favour of truth and sound scholarship. Outstanding in his class he was also judged the most outstanding among the students who appeared for the University Examination in his year. And so Cornelius left the portals of his *alma mater*.

It was his mother's earnest desire that this son should serve the church, and so Benjamin Cornelius sailed for England to enroll in New College, London, for courses in Theology. He had hardly begun work when he got word that he had been awarded a scholarship at Hartford Seminary Foundation in the United States. At Hartford he threw himself heart and soul into his work, and mastered Hebrew and Greek very rapidly.

Coming from a pious home and from a land where the Bible was deeply revered, he was shocked by the scientific attitude of the time which had brought about 'disintegration' of the books of Bible and a study of sources. It took some time for him to overcome his repugnance to such an attitude, but he set himself to follow where reason and scholarship led him. This influence was offset by the interest and fellowship of Dr F. N. D. Buchman, one of his Professors, the founder of first the Oxford Group Movement, and later of Moral Rearmament. But the greatest influence of all was the friendliness and companionship of the young men and women of the America of the nineteen-twenties. He had never known such happiness as in the Y.M.C.A. Camps at Silver Bay, Lake George, where beside the serious work of the day there was also boating, bathing, community singing and other forms of recreation. It was this experience that made him ever after such a sympathetic and warm-hearted supporter of simple pleasures for the young, for his nephews and nieces who always found in him a guide, philosopher and friend.

At the end of his three-year period, B. E. Cornelius was awarded prizes for Hebrew and Greek at Hartford. Besides, he won the coveted John S. Welles travelling fellowship enabling

him to continue his studies anywhere for another two years. He registered for the Ph.D. in Philosophy under Prof. Norman Kemp Smith at Edinburgh University with the privilege of spending some terms at Oxford and at Jena, Germany, where he worked under Dr Eucken. The subject of his research was 'John Dewey's Theory of Moral Values.' Though he made a deep and careful study of the American philosopher's writings, Benjamin never adopted his doctrine that truth is what works well in practice.

It was at Edinburgh that he indulged to the full his love for classical European music. He had not had formal lessons in music, but he had learnt to play the piano by ear, and to appreciate the music of Mozart, Beethoven and Bach. Concerts of music always drew him in spite of his ascetic and strictly methodical routine of life.

Throughout his years abroad he looked forward to his return to India, when he would be able to make a home for his mother. As his work on the thesis neared completion his desire and expectancy rose to a higher pitch. But in June 1924 his mother died in Madras, and the news overwhelmed him for some time. He found himself unable to continue his work and he wondered whether to return to India without finishing his thesis. In the autumn of that year his elder sister, Mrs Paul Appasamy, spent some time with him at Edinburgh, comforted him and encouraged him to complete his work—which he did at the end of that year.

In 1925 he was appointed Professor of Philosophy at Hislop College, Nagpur; the following year he was invited to be Professor of Philosophy at the Madras Christian College—his *alma mater*. His interest and sympathy with the young made him an excellent teacher; he had the gift of making the abstruse and difficult easy to understand. Once the thought process was clear he could build the whole philosophy upon it. But he never during his life was encumbered with philosophical jargon. He would not use long words where simpler terms would do, and he had a facility in his examples. He also accepted as men and equals those whom he taught—never patronising, never superior, an elder brother in the pursuit of knowledge.

While at the Christian College he read widely in Indian Philosophy, particularly Dr S. Radhakrishnan's works, and his interest in the Indian schools of thought became so imperative that he decided to give a couple of years to their study. With this in view he enrolled in 1928 in the School of Oriental Studies attached to the University of London for the study of Sanskrit and Indian Philosophy. The subject of his research for the second Ph.D. was 'The Hindu Conception of the Deity as culminating in Ramanuja'. He completed his thesis in 1930 and obtained his degree with Honours. The book was published by Luzac & Sons, London.

With the study of Indian Philosophy and Sanskrit his sympathies broadened and his understanding of Indian culture in the truest sense deepened into a real love for the great heritage of our land. He knew he must learn more Sanskrit, and so with the help of a Fellowship he spent a year at Amalner, learning Sanskrit and the Vedanta Philosophy.

It was in 1931 that he first met Gandhiji through his brother, J. C. Cornelius, who had already joined him. Gandhiji, when he met a man of promise had a way of assigning him a particular task—to B. E. Cornelius he gave the task of exploring the philosophical foundations of Jainism. Gandhiji seems to have needed a sound philosophical and religious basis for the concept of non-violence and satyagraha. About this time both the brothers changed the surname (their father's name) Cornelius for their grandfather's name, Kumarappa. They became J. C. Kumarappa and Bharatan (instead of Benjamin) Kumarappa. Bharatan joined the Gujarath Vidyapith to undertake this study. A few months later the Civil Disobedience movement broke out. Many Congress stalwarts were in jail already. Then J. C. Kumarappa who was editing 'Young India', as a News Sheet in defiance of the law, was arrested. Bharatan stepped into the breach, and soon afterwards he too was arrested and detained without trial

for 18 months at Nasik Central Jail. It is said that Bharatan's poise, dignity and bearing when he was arrested was such that the policeman arresting him burst into tears at the thought of haling such a man to the lock-up. On his release for a brief interlude, Dr and Mrs James H. Cousins invited him to teach at the Besant College, Madanappalle, and he returned once more to college work, and also to his study of Indian Philosophy and Sanskrit together with Professor Kosamby. Soon afterwards however his brother J. C. Kumarappa was organising the All-India Village Industries Association as its Executive Secretary; since his activities took him all over India, attending conferences, organizing surveys and experimenting with village industries, he asked Bharatan to take his place at the desk at Headquarters, Maganwadi, Wardha, as Assistant Secretary. Though such work was far from the field of his scholarship and training, he gladly gave up philosophy and education to serve the masses of India. The next dozen years were spent at Maganwadi, living in true Ashram style in a bamboo hut with just enough for clothing and food to keep going. But asceticism was in his nature. His wants were always few and he regulated his life accordingly with the greatest ease, and even grace. It was during these years that he developed a devotion to Gandhiji who resided nearby at Sevagram, and studied his thought at first hand. Besides editing the pamphlets, and books of J. C. Kumarappa, he himself found time to bring out 'Why the Village Movement' and 'Capitalism, Socialism and Villagism'—an application of the principles of truth and non-violence to man's economic life.

1942 again saw the brothers in jail, and Bharatan returned to Wardha on his release two years later. Even in prison, where he turned to study once more, he saw a new field of work opening to him—the collecting and arranging of Gandhiji's thought and writings—and after the tragedy of January 30th, 1948, at that fatal prayer meeting in Delhi, he regarded this task as a sacred trust given him to fulfil.

From 1948 to 1955 Bharatan was associated with the Navajivan Trust in Ahmedabad, which was bringing out volume after volume of the thought and teaching of Mahatma Gandhi under convenient headings. Among these may be mentioned not only the *Autobiography* and *The Story of My Life*, but volumes on Communal Unity, Untouchability and Sarvodaya. Living with his brother, J. M. Kumarappa, in Bombay he worked methodically and steadily, at the same time reviewing books and writing articles for many journals. It was during these years too, that he served on the Social Commission of the United Nations both in Geneva and New York, and lectured under the auspices of the American Friends Service Committee from coast to coast in the United States. He attended the World Pacifist Conference in Japan as a delegate from the Akhil Bharat Sarva Seva Sangh.

When the Government of India decided to collect and issue an authentic record of all Gandhiji's letters, speeches, statements and writings, they decided that Bharatan Kumarappa was the most suitable man for the work of Chief Editor. Bharatan did not wish to take up work with Government on the salary offered having so long lived a life of quiet renunciation as a constructive worker. He yielded finally because of the persuasion of the late Sri Devadas Gandhi who was a personal friend of his and who assured him that no embarrassment need be felt. Bharatan left for Delhi, set up his office, recruited a carefully chosen staff, and drew up the outline for 60 volumes of the collected works of Mahatma Gandhi arranged on chronological lines. Although he despaired of completing this colossal task he looked forward to completing some portion at least of the work. He was working at high pressure to bring out the first volume in time for the birthday anniversary of Gandhiji, when he ruptured a blood vessel in the brain and died on the 25th of June 1957. Cremated according to his wish in Delhi his ashes were brought to lie next to his mother's grave in Madras.

So passed at the age of 60 one of the finest and noblest of men that it has been my privilege to know. Bharatan Kumarappa was my mother's youngest brother and identified himself

with the generation of nieces and nephews rather than with the older members of the family? He was always 'our' special uncle and one who knew, understood and was ready to help each of us even at an early age. I remember listening to his accounts of his student days in America or his adventures at Edinburgh, London and Europe with rapt attention. As we grew up, he was always one to whom we turned with our problems—courses of study, going abroad, choice of career, marriage—in any crisis his judgement was always valued, and found to be justly weighed and balanced. I was also privileged to live with him for two years in Wardha, and then to live in the neighbouring city of Nagpur. The utter selflessness of the man, and his warm affection and interest in not me alone but all members of the family, indeed all who knew him, made the deepest impression upon me. And behind his life and action was always the loftiest of ideas, and calmest acceptance of absolute moral values, which seemed to be so distinct from the common world we live in. He was a man apart, a man who could lift us into another world to breathe its pure air in fellowship with him, and yet who lived and believed that such a life could and should be lived by everyone in our world. His saintly Christian mother, his Christian upbringing in school and college and his training abroad enabled him to bring the witness of his life not to his family alone—not even to the Christians in the country—but to the whole nation. It has not been given to many Christians to live and work with the most able and dedicated men of other faiths in India. Every one who visited Gandhiji at Sevagram returned to wonder at the serene atmosphere of love, trust and spirituality of the place. It was in such a group that Bharatan Kumarappa was numbered among the simplest and noblest spirits in the land. It was there that his service carried him, and that he made his contribution. He was indeed a dedicated spirit.

S. P. APPASAMY.

Weather Forecasting

S. D. WILLIAMS

Regional Meteorological Centre, Madras

The Magazine always aims at having an article by an old student about the work he is doing, particularly if it is something distant and unusual. The work of the meteorology service we are all aware of everyday when we see the weather reports in the papers. A number of our old students are working in this service, and in this article Stanley Williams writes, with the permission of the Regional Director of the Service, about the work which lies behind the daily reports. The field of his own special research has been the occurrence of fog over Bangalore. During his ten years in the service he has been working in Poona, in Delhi and now in Madras.

Definitions:

To begin with, it is desirable to define some of the terms that are vitally connected with this subject. In connection with weather forecasting, we think of weather, atmosphere and meteorology. The term 'weather' may be defined as the aggregate of atmospheric conditions at any one time in any one place, which changes from day to day. 'Atmosphere' is that invisible ocean of air at the base of which we live. 'Meteorology' is the science of atmosphere. It is a branch of the wider science of Physics. Modern meteorology includes the study of the physical processes which occur in the atmosphere, and of the connected processes of the lithosphere (the surface of the earth) and hydrosphere (the surface of the ocean).

Introduction:

The study of weather is perhaps as old as the human race, and because of its profound influence on life, the subject attracted the notice of thinking men of all ages. Astrology also

indulges in the prediction of rain, floods, droughts, etc., and these are published in our country year after year in Panchangs and Jantries. The educated public, however, do not take these predictions seriously, because no astrologer has yet shown that his forecasting methods are based on scientific principles or will stand the test of scientific criticism.

In our country, meteorological observations were first started at the Madras Observatory in 1796 and at Colaba, Bombay, in 1846. The Meteorological Department, however, started functioning in 1876. The weather forecasting system of this country is centred at the Ministry of Communications, Government of India, with the Director General of Observatories heading the Indian Meteorological Department. He is assisted by four Deputy Directors General on a functional basis. Five Regional Directors exercise control over the meteorological observational networks and maintain them in a state of efficiency, compile climatological information and render meteorological services within the areas under their jurisdiction. 'The Weather Central' at Poona issues the weather reports and analyses on an All-India basis. The workshops and laboratories attached to the offices at New Delhi and Poona manufacture most of the meteorological instruments commonly used by the Department, while the hydrogen required for pilot balloon observatories is manufactured by the Department's hydrogen factory at Agra. The subjects of terrestrial magnetism and atmospheric electricity are the responsibilities of the Alibag and Colaba Observatories, while the Central Seismological Observatory at Shillong functions as the headquarters of the Seismological Organisation. The Kodaikanal Observatory specialises in the study of Solar Physics and Astrophysics, of the Ionosphere and of Radio Astronomy.

Organisation for Weather Forecasting:

The modern technique of weather forecasting depends upon the understanding of the physical basis of weather occurring at a particular time over an area and a prognostication of the expected weather on the basis of principles of development in meteorology. Thus, weather forecasting requires far-flung organisation maintained by the Weather Service. For a study of weather and issue of forecasts, it is of greatest importance to measure the weather elements accurately at a number of points at the same time not only over a wide area of the earth but also to great heights in the atmosphere. A large number of instruments have been specially designed for measurement of various elements on the earth's surface as well as in the free atmosphere. Measurements of upper winds are made by sending hydrogen-filled balloons and observing their drift through a telescope. Instruments for recording pressure, temperature and humidity in the upper air have been devised in recent years by fitting them with small radio transmitters and letting them off with hydrogen-filled balloons. These instruments, called radio-sonde, transmit the required information from the upper atmosphere usually reaching up to about 10 miles above the surface of the earth. Radar is also successfully employed in locating distant thunder-storms and cyclones and also for measurement of upper winds. Visual and instrumental observations of aircraft in flight and the microseismic tremors of earth produced by ocean waves are also being used in aid of weather analysis and forecasting. Besides about 365 surface observatories, 50 pilot balloon observatories, 13 radiosonde stations and 9 observatories for measuring radio winds are now functioning in our country. The progress in weather forecasting, in some aspects spectacular, has been achieved very largely through the extension of observations and their rapid assembly. This is being done by the quickest means of communication, viz., telegram, radio and teleprinter.

Weather Forecast:

There are broadly five stages in the preparation of a weather forecast, viz., (i) Observations (ii) Collection of data (iii) Plotting of data on weather charts (iv) Analysis of weather charts, and (v) Prognosis and forecasting.

(i) *Observations*: There are about 365 Surface Observatories spread over the whole country. In addition, there are many stations in Ceylon, Burma, Pakistan, Arabia, Africa, Australia, Indonesia, Siam, China, Japan, Russia, etc., and many ships at sea which supply

information. All this is necessary because, if based on only observations within this country, it will be difficult to give a reasonable forecast. It is necessary to take into account the weather being experienced in other parts of the world and particularly in neighbouring countries and seas. The meteorological service is in fact a world-wide service and international agreements have been drawn up for the interchange of weather information. Observations are made at certain fixed times laid down by international convention. In India, they are made at 0230, 0530, 0830, 1130, 1730 and 2330 hours I.S.T. It may not be possible for every station to send reports at all these times, but in any case at least two sets of observations are sent each day, namely, at 0830 and 1730 hours IST. Just before the time at which the observations are to be made, an observer goes out and notes first the state of the sky, writes down the amount and type of cloud, expressing the amounts as so many octas of the sky covered, and if high cloud is visible as well as medium or low, he notes them. He also notes if there is any precipitation going on at the time—rain or thunderstorm, etc. He then looks for some chosen land-marks at known distances away and thus estimates visibility. Next, he notes down the direction of wind and its strength. The thermometers in the 'Stevenson Screen'* are then read and the reading of wet and dry bulb thermometers together with the maximum and minimum thermometers are taken. Finally, the barometer is read and the reading corrected to mean sea level.

(ii) *Collection of data* : It may be thought that to send a telegram with all this information would be lengthy and expensive. It is, therefore, coded into a special code of letters and numbers which is recognised internationally and is not very difficult. Suffice it to mention here that the final message consists of seven groups—35 figures, altogether. Ships send their messages and they add their position in terms of latitude and longitude. When the Main Meteorological Office receives these reports from stations throughout the region, they are, in a collected form, broadcast over radio so that the other Main Meteorological Offices may receive the same.

(iii) *Plotting of data on weather charts* : The data when assembled at the forecasting office are plotted on an outline map of India and neighbourhood in their correct geographical positions in the form of figures and symbols. This chart is known as a 'synoptic chart'.

(iv) *Analysis of weather charts* : The forecaster then draws on the chart isobars or lines of equal pressure and when this is done, the pressure system prevailing over and near the Indian sub-continent becomes evident as also the areas of rain and fine weather, the distribution of cloud, surface temperature, etc.

(v) *Prognosis and forecasting* : A weather forecast is prepared on the basis of analysis of the present and by the application of principles of development. After studying and locating the identifiable moving pressure systems, the forecaster super-imposes the same on the semi-permanent seasonal-cum-diurnal characteristics of the weather of the area. In the tropics especially, the seasonal and diurnal characteristics have a much greater share, and the characteristics of the moving pressure systems undergo large modifications due to the influence of the semi-permanent features.† Besides the above, the forecaster for issuing the weather forecast, has the following additional aids available to him:—

- (i) adequate knowledge of the climatology of the region,
- (ii) verified empirical rules,
- (iii) an array of past charts of exactly similar situations, and
- (iv) forecasted charts of a subsequent hour, obtained with the aid of a high speed electronic computing machine. (The last aid has not yet been made available in India.)

Forecasting for different requirements:

After all these stages, the forecast issued must also cater to the needs of different sections of people. A pilot of an aircraft requires a forecast for a large number of elements along his

* The Stevenson Screen, used for the records of temperature which the college has regularly made since Mr and Mrs Barnes came to live at Tambaram in 1931, can be seen in the college nursery garden.

† This explains why, without knowing whether there is a depression in the bay, we may, on any day in November, guess that it will rain; and, on any day in March, guess that it will not rain.

flight path and at his destination, but the forecast is limited only to a few hours. An irrigation engineer requires warning for heavy rain at least two days ahead and the farmer, for planning his agricultural operations, would like to know the weather even five days ahead. Therefore, different techniques are to be applied for the different forecasts.

Types of forecasts:

There are three different types of forecasts, viz. (i) Short range (ii) Medium range and (iii) Long range. The short range forecasts described in the preceding paragraph contain details of weather expected during the next 6, 12, 24 hours, etc. Forecasts for a period of 4 days to a fortnight are called medium range forecasts and those for longer periods long range forecasts. Seasonal forecasts which come under the category of long range forecasts are predictions covering a whole season. India is a pioneer in issuing for the past 75 years monsoon seasonal forecasts based on correlations of the Indian Southwest Monsoon with conditions as far away as South America and the Pacific.

Before I close this article, let me remind the young reader, that the pursuit of any scientific subject requires careful observation. If you are interested in the study of weather, I would suggest that you maintain a note-book in which a record of the day-to-day weather is kept. You can set apart a few minutes to look at the sky, or to make a note if it is raining or not and, if you are much more interested, you could purchase a thermometer (or perhaps two, and make a wet and dry bulb instrument). If there is a barometer in the college, so much the better. Make a careful record of its readings and see how the weather is related to your observations. In course of time, you yourself, will be able to make quite a good guess of the likely weather and thus you will also turn out to be a miniature 'Weather Forecaster'.

Physics Symposia

I

We had a very busy second term in which as many as nine lectures were given by eminent men working in different fields. Two seminars were conducted successfully; one on 'Quantum Theory of Matter' and the other on 'Cosmic Rays'. Quantum Theory is considered abstruse by many and is unusual as a topic of interest among College Societies. But our Association took the initiative in conducting a series of lectures on 'Quantum Theory' (though with some reluctance) with the confidence of deriving support from all quarters. In this respect we had the unique opportunity of listening to eminent physicists like Dr M. G. K. Menon of the Tata Institute of Bombay. The Tata Institute of Fundamental Research, Bombay, was fully represented in both the Seminars. Dr M. G. K. Menon participated in both the Seminars, and gave two lectures each lasting for more than two hours. A separate article appears elsewhere which endeavours to record the discussions, confusions, opinions and hopes expressed during the Seminar. Those who participated included a Mathematician, a Pure Physicist, an Experimental Physicist, a Chemist and a Philosopher. The presence of a Philosopher and a Mathematician every day encountering animated discussion was itself a stimulation to all others present. The considerations tackled were of a simple nature, but nevertheless, the simpler notions were often the most difficult ones.

The Seminar was conducted in the Inter-Physics Hall and those present included many invited participants and students from the University and many city colleges. The programme was confined to a main paper each day, allowing ample time for discussion, and providing for short presentation of additional papers by some of the participants. As is to be expected some of the liveliest and most interesting parts of the Seminar were the

discussions which took place every day. Arrangements were made to tape-record the main talks and discussions. Participants were effectively saved from brain fatigue by a number of films shown after the lectures.

The problems attacked have not yet settled down so that they cannot be viewed with any kind of real perspective. At present the most that can be hoped for is that these lectures will give a fairly reasonable picture of current activity in the field of Quantum Physics and stimulate greater awareness of a whole series of fundamental questions which have yet to be answered. Everyone who attended was stimulated with a fresh awareness of the Unity of Physics and of the many exciting and different problems with which the Science is confronted today.

Usually it is said that experts are always bragging about how little they know, 'the bigger the expert the louder he brags'. Those who attended the Seminars were indeed impressed by the fact that they were given by experts.

The thanks of the Secretary go to the many persons who accepted the invitation to attend, and made the Seminars a success by their presence, and particularly to those who contributed papers and took part in the discussion. Special mention must be made of those from the Tata Institute of Fundamental Research, Bombay, for participating in every lecture.

K. V.

II

Dr Krishnamachari gave a masterly address on some philosophical questions raised by modern Quantum Theory. A crowded audience listened with close attention for an hour and three quarters. He quoted a number of eminent physicists, Einstein, Heisenberg, Schrodinger, and others, showing that many physicists believe that it is no longer possible to hold that strict determinism can be found in Nature. The uncertainty principle shows that the knowledge we should require for exact prediction of future events can never be obtained even of the smallest systems. All statements about the future of any physical system must be made in terms of probability and not of exact prediction.

It seems obvious, since physicists hold different views on the matter, that it is no longer possible to maintain that a study of the physical world demonstrates a strict determinism. It was not very unreasonable to maintain this two generations ago. But it is now clear that questions of determinism and free will need to be argued by philosophers rather than by physicists.

Dr Krishnamachari discussed what is meant by causality, and surprised us rather by declaring that the form in which physical science understands causality is the belief that all events are determined by second-order differential equations. When it is put in that way it seems naive to hold that a type of law which has been found to hold for a wide range of events will be certain to hold for all other types of events. But no doubt some scientists have held a belief rather like that. In fact, some physiologists, zoologists and botanists have expressed their constant hope that all events in living organisms may ultimately be explicable in terms of physical and chemical laws. And then the physical and chemical phenomena, men hoped, could all be reduced to a few fundamental laws with precise mathematical description. But it is really as absurd—or rather more absurd—to suppose that everything that happens in living bodies can be explained by known, or shortly to be discovered, physical laws, as to suppose as primitive men did, that physical events, thunder, lightning, waterfalls and floods, were due to the action of a number of separate living spirits. Our understanding of and belief about any field of experience must be based primarily on our experience in that field. While the physiologist is no doubt right to explain all that he can of organic processes in terms of physics and chemistry, it cannot be supposed that those events which he cannot so explain are less important than those which he can: they are more important. And the student of religious experience may be right to explain all that he can in psychological terms, but must know that he has been led to reality beyond psychological explanation.

W. F. K.

III

There is a South Indian proverb which states that in the settlement of a marriage the bride is mainly concerned with whether the bridegroom is fair and good looking, her father asks whether his son-in-law is well educated, her mother whether he is wealthy, while other relations are mainly interested in the grandeur of the festivities and the sumptuousness of the food. Even so, any comprehensive physical theory appeals to different people in different ways. The mathematician is happy at the beauty and cogency of the underlying mathematical structure, the experimental physicist asks whether the premises of the theory and its conclusions are supported by experimental evidence, the philosopher whether the theory pieces on with the nature of knowledge and the structure of the universe as developed in other fields of thought, while the common man asks whether the new theory will result in beneficial new inventions. It will also be clear that to different persons different modes of approach or points of the theory make a special appeal, and each accepts the theory based on his own mode of building it up. This is why no two people will give the same exposition of a subject—the emphasis and the mode and order of presentation being individual to each speaker. For all these reasons the exposition of the two subjects—Quantum theory and Cosmic rays—by two physicists, a mathematician, a philosopher and a chemist was most valuable and illuminating and I must congratulate the organisers on having arranged this delightful series of talks.

A. NARASINGA RAO

IV

It is a good Johnsonian dictum that a blade of grass is always a blade of grass, whether in one country or another. While that may be generally true of blades of grass, it is no longer true of the microphysical world. An electron is not *always* a 'particle' in the classical sense; it is for certain mathematical purposes a 'wave' or even a 'wavicle'. 'Electron waves' in many mathematical dimensions are neither very clear nor very obvious except to the half-educated rationalist or materialist. The Physics Association of the College arranged a series of talks on quantum physics in the hope that intelligent young men who had learned and recited their alpha and beta would prize studies conducing to sobriety and wisdom. Nor were the expectations belied; large numbers, almost as importunate as Penelope's suitors, attended the lectures.

Though Dr G. N. Ramachandran of Madras University spoke with a Latin rationality and a German seriousness on the 'wave-particle dualism', he did not forget to refer to Sir William Bragg's joke that all self-respecting physicists use the classical 'particle' picture on Mondays, Wednesdays and Fridays and the modern 'wave' picture on Tuesdays, Thursdays and Saturdays. In the discussion which followed, Max Born's admission (*Physics in my generation*, Pergamon Press, London, 1956, p. 106) that the 'probabilistic' interpretation of the 'amplitude' of 'electron waves' is a 'metaphysical idea' stood out conspicuously. Dr A. Narasinga Rao, a former President of the Indian Mathematical Society, talked on the mathematical background of quantum physics. Age has not wearied his humour; nor the years condemned his whimsicality. He both amused and bemused the audience. He showed that absolute determinism is an example of how a small truth can be magnified out of all proportion; our measurements, even in classical physics, have to be treated statistically. And the problem of making the *postulates* of science philistine-proof, reviewer-proof, is not quite so simple at it appears. Postulates are never self-evident or inevitable. Dr Kibble, who presided over the meeting, made us feel how near mathematics is to physics and yet how far. Two brilliant *obiter dicta* he dropped in private conversation, with his quiet humour, are worth reproducing: quantum physics uses a surprising number of theorems it has not proved rigorously; and it is satisfied with approximations. In a review of Professor Umezawa's *Quantum Field Theory* in *Nature* (April 13, 1957, p. 747), Peierls said: 'It is doubtful whether a

process of successive approximations is an approach to a rigorous solution of the equations of the present theory and whether, in fact, such a solution exists'.

Nuclear physics is unclear physics to most of us: the decay schemes for the heavy mesons (tau, kappa, theta, etc.) have been disconcerting. Dr Menon of the Tata Institute of Fundamental Physics blazed a track through the wood by a brilliant lecture on the 'K-particle' and its many aliases and alibis. The specifically quantal ideas of particle-wave representation and particle-antiparticle conjugation were shown to be fruitful in nuclear physics. In the discussion which followed, Dr Menon gave a *viva voce* display of his talents and told us much about strong and weak interactions in the nuclear domain. Father Yadanapalle of the Loyola College handled a forbiddingly technical subject, quantum chemistry, without requiring an awkward Baker's dozen to express himself. He showed how the Schrodinger wave equation, managed with tact and understanding, can explain the characteristic tetrahedral values of the HCH angles in methane and the abnormally high diamagnetic susceptibility of benzene. Dr Ananthakrishnan's presence in the chair was chastening: he explained how the James-Coolidge model of the Hydrogen atom, using a trial wave-equation containing some 13 terms, comes remarkably near the observed values. Philosophers and such small deer are usually considered not respectable enough for meetings of the Physics Association. But since the infallibility of physics is no longer so obvious as it once seemed, Dr C. T. Krishnamachari was allowed to address the Association on the various attempts to 'renounce', 'restrict' and 'reformulate' causality in quantum physics. In the discussion which followed, Dr Ramachandran pointed out that attempts to exclude 'hidden variables' (such as those postulated by D. Bohm), by an appeal to Von Neumann's theorem, are circular. Unfortunately Bohm's latest model (*Observation and Interpretation: A Symposium of Philosophers and Physicists*, Butterworth's Scientific Publications, London, 1957, p. 61), which allows the 'continual formation and dissolving of the electron' at a sub-quantal level, does not seem to restore *complete* determinism. Dr Thangaraj rounded off the series of talks with a very instructive lecture on the 'uncertainty relation.' He mathematically deduced the precise relation from Heisenberg's celebrated, if hypothetical, 'gamma-ray microscope' for detecting, in principle, an electron. Dr Thangaraj prefaced an account of Bohm's theory with the remark that credibility is perhaps too high a standard by which to judge the latest physics. In the discussion which followed, he explained lucidly the distinction between the 'group velocity' of 'matter waves' (taken, say, as the velocity of propagation of local maxima of amplitude, these maxima being produced by the superposition of trains of harmonic waves of various wave lengths) and the 'phase velocity'.

On the whole, the symposium served a purpose. It is true that occasionally, though very occasionally, the symposiasts were using one another as whetstones to sharpen their wits and the audience was more absorbed in the debate than enlightened by its conclusions. But Dr Thangaraj claimed a poetic licence for physics by pointing out that physics without controversy, a physics in which Dirac does not fight with Schrodinger, may be a dull game. We remember, of course, that even Shelley and Byron, in their critical capacity, abused Keats. We do not, however, agree with the critic in *The Vicar of Wakefield* that you should *always* say that the picture would have been better had the painter taken more pains. Mr Visweswaran, the secretary of the Physics Association, who with indefatigable energy catches his fish from all waters, could not have made a better haul; he deserves to be congratulated. Dr Thangaraj deserves praise for making it clear that we do not buy quantum physics, as we buy Tolstoy and Rolland, merely for the sake of etiquette. Physics is a part, very much a part, of what we call general or liberal education.

C. T. KRISHNAMACHARI

The Limitation of Comedy

A Study of the Role of Falstaff

T. K. THOMAS

For the purpose of this paper I wish to confine myself to the two parts of *Henry IV* which I consider as one single play, with, however, two distinct motives, which justify its division into two plays. The announcement of the death of Falstaff in *Henry V* does not possess very much more than the importance of an obituary notice, and the Falstaff of *The Merry Wives of Windsor* is a vulgarized version of the real Falstaff. On this point critical opinion is, for the most part, surprisingly agreed. Professor Stoll's claim, that 'the figure of the braggart captain, which came into Shakespeare's hands from Plautus or from the Comedy of Masks, would have been incomplete if he had not appeared as the suitor gulled',¹ has not found many supporters. But on the other question of the structural unity of the two parts of *Henry IV* there is substantial disagreement. According to Dr Johnson these two parts 'will appear to every reader, who shall peruse them without ambition of critical discoveries, to be so connected that the second is merely a sequel to the first; to be two only because they are too long to be one.'² Among modern critics both Dover Wilson and E. M. W. Tillyard emphasise the structural unity of the play. On the other side R. A. Law claims that each of the two plays is carefully planned as an organic unity.³ Tucker Brooke goes even further, and holds that 'the second part of *Henry IV*, like the second part of *Tamburlaine*, seems to be an originally unpremeditated addition, occasioned by the enormous effectiveness of the by-figure of Falstaff.'⁴

I am persuaded that there is real, if accidental, unity in the structure of the two parts. As I understand it, *Henry IV* i and ii deal with the story of the reformation of Prince Hal who, as Dover Wilson puts it, remains 'the technical centre of the play.'⁵ The king himself is a conventional and shadowy figure, enveloped in self-conscious royalty. The Prince is the central figure, and his struggle to become and to belong is the theme of the play. This struggle consists of two contests; in the one he defeats Hotspur, and in the other he vanquishes Falstaff. These motives are both evident from the beginning of the first part, and are simultaneously worked out till its end when, with the death of Hotspur, one phase of the action is over. The other phase of the action is concluded with the banishment of Falstaff at the end of part ii. This theory, in its essentials, has been put forward by Harold Jenkins. After proving that in the two parts of the play there are only two versions of a single reformation, and not two princely reformations, he summarises his argument thus: '*Henry IV*, then, is both one play and two. Part i begins an action which it finds it has not scope for but which part ii rounds off. But with one part of the action already concluded in part i there is danger of a gap in part ii. To stop the gap part ii expands the unfinished story of Falstaff and reduplicates what is already finished in the story of the Prince.'⁶ I cannot accept this *in toto*. I do not see any re-duplication in the second part; it merely expands the Falstaff story and completes the pre-destined reformation of the Prince.

It was important to have underlined the structural unity of the play because it suggests its morality pattern, and thus defines the role of Falstaff. And Falstaff, let us remember, has a

¹ Elmer Edgar Stoll, *Shakespeare Studies*, pp. 455-6.

² Samuel Johnson, *Edition of Shakespeare* (1765), Vol. IV, pp. 355-6.

³ Robert Adger Law, in *Studies in Philology*, April 1927.

⁴ Tucker Brooke, *The Tudor Drama*, 1911.

⁵ J. Dover Wilson, *The Fortunes of Falstaff* (1944), p. 17.

⁶ Harold Jenkins, *The Structural Problem in Shakespeare's Henry the Fourth* (1956), Methuen and Company Ltd., p. 26.

clearly defined role in the play. He is not 'a magnificent irrelevance in a play about Henry IV.' (Nor is the play about Henry IV.) A great deal of the romanticization of Falstaff's character has been the result of a certain reluctance to recognise the man's real relevance. Some characters, through their vitality and their seeming independence, lend themselves to be abstracted from their legitimate context in the world of a play or a story. They are all too readily adopted by people with 'ambition of critical discoveries', or other minor ambitions, and assiduously cultivated. Satan in *Paradise Lost* is, of course, the most notorious instance of this species of academic self-indulgence. Falstaff comes a good second.

In his book *The Fortunes of Falstaff* Dover Wilson has an excellent section on the morality pattern of *Henry IV*, and I cannot do better than give an outline of his general argument. According to him the mainspring of the dramatic action is the choice the Prince is called upon to make 'between Vanity and Government, taking the latter in its accepted Tudor meaning, which includes Chivalry or prowess in the field, the theme of Part I, and Justice, which is the theme for Part II.' These abstractions are embodied in the important characters of the play: 'Falstaff typifying Vanity in every sense of the word, Hotspur Chivalry, and the Lord Chief Justice the Rule of Law or the new ideal of service to the state.'

Human salvation was the invariable theme of all early English drama. The topic was treated either historically, as in the miracle plays, or allegorically, as in the moralities. The devil is often given a free hand, and he becomes the source of a great deal of merriment, but he is ultimately defeated. 'Salvation remains the supreme interest, however many capers the Devil and his Vice may cut on Everyman's way thither, and always the powers of darkness are withstood, and finally overcome, by the agents of light.'

Thus while Falstaff represents, as is generally admitted, the *miles gloriosus* tradition of Roman comedy, he has more directly inherited the attributes of the Vice and the Vanity of the moralities, and of the Riot of the Interludes. He is the Lord of Misrule, the Fool, the Buffoon, and the Jester. Incidentally, one feels that this early tradition of laughing at the devil, though it was certainly not introduced for religious edification, registers singular psychological propriety.

All this, I wish to make clear, is not intended to prove that the Falstaff that we have is nothing more than a stock character taken out of an old tradition. Nor, for that matter, was Noah's wife, or even King Herod. Shakespeare has made him larger (or less, as I hope to prove later on) than life. But his allotted role is the role of the Tempter, the Vice and the Fool. For the heroic individual he is the tempter to be overthrown; for a law-abiding society he is the potential element of disruption that should be destroyed at all cost. For the Prince he is 'that villainous abominable misleader of Youth, that old white-bearded Satan' and 'that reverend Vice, that grey Iniquity, that father Ruffian, that Vanity in years.'

Tillyard's reading of the play is similar to Wilson's, though he adds a new dimension of meaning to the character of the Prince. 'In the first part', Tillyard writes, 'the Prince is tested in the military and the chivalric virtues. He has to choose, Morality-fashion, between Sloth and Vanity, to which he is drawn by his bad companions, and Chivalry, to which he is drawn by his father and brothers. The action is complicated by Hotspur and Falstaff, who stand for the excess and the defect of the military spirit, for honour exaggerated and dishonour. Thus the Prince, as well as being Magnificence in a Morality play, is Aristotle's Middle Quality between the two extremes.'⁸ In the second part the Prince is tested in the civil virtues. 'He has to choose, Morality-fashion, between disorder or misrule, to which he is drawn by his bad companions, and Order or Justice (the supreme kingly virtue) to which he is drawn by his

father and by his father's deputy the Lord Chief Justice. And he chooses Justice.'⁹ The Aristotelian motive occurs again, Hal this time striking the balance between the parsimony of John of Lancaster and the extravagance of Falstaff. For Tillyard Falstaff is, among other things, the epitome of the Deadly Sins, and he is made to play this role with 'precise and academic symbolism'.¹⁰

Behind this morality pattern of *Henry IV* we have Shakespeare's more or less simple acceptance of certain current political ideas. Like any other aspect of his life his political philosophy too has been the subject of over-much speculation. We are concerned here only with those general ideas which Shakespeare seems to have held, on which there is, on the whole, a certain consensus of critical opinion.

Thus there is nothing in the plays to suggest that Shakespeare did not accept the established order of things. On the other hand the historical plays seem to make a strong plea for order and stability, in the sense in which these concepts were understood in Shakespeare's own day. The nation had only recently recovered from the devastations of a long-protracted war, and the danger of disunity and rebellion was fresh in the minds of men. The words of Henry IV:

No more the thirsty entrance of this soil
Shall daub her lips with her own children's blood;
No more shall trenching war channel her fields,
Nor bruise her flowerets with the armed hoofs
Of hostile paces:

expressed as much the desire of the Elizabethans as the political strategy of a war-worn king.

It was expedient to abide by the dispensation that obtained, and this, one may safely assume, was no small consideration with Shakespeare. But his natural inclination seems to have been in the direction of order and peace. It is a recurring theme in his plays. In *Titus Andronicus* Marcus Andronicus, introducing their future king Lucius to the people of Rome, proposes to teach them

... how to knit again

This scatter'd corn into one mutual sheaf,
These broken limbs again into one body.

Macbeth is convinced of the inevitability of an earthly judgement, that all revolutions are ultimately futile, not because they betray themselves but because they betray the man who caused them;

that we but teach

Bloody instructions which, being taught, return
To plague the inventor.

And *The Tempest*, as all are agreed, is exclusively concerned, on one level, with the restoration of the old order and the reconciliation of estranged relationships.

This general desire for order and security is deeply rooted, in its turn, in Shakespeare's conception of degree. The famous speech of Ulysses in *Troilus and Cressida* is the most elaborate exposition of this thesis in Shakespeare.

When that the general is not like the hive
To whom the foragers shall all repair,
What honey is expected? Degree being vizarded,
The unworthiest shows as fairly in the mask.
The heavens themselves, the planets and this center,

⁷ F. L. Lucas, *Tragedy in Relation to Aristotle's Poetics*.

⁸ E. M. W. Tillyard, *Shakespeare's History Plays* (1946), The Macmillan Co.

⁹ *Ibid.*

¹⁰ *Ibid.*

Observe degree, priority, and place,
Insisture, course, proportion, season, form,
Office, and custom, in all line of order.

.....
How could communities,
Degrees in schools and brotherhoods in cities,
Peaceful commerce from dividable shores,
The primogenitive and due of birth,
Prerogative of age, crowns, scepters, laurels,
But by degree, stand in authentic place?

This concept of degree is a compound of Platonian Idealism and Christian orthodoxy, and in spite of Machiavelli it was the current political theory of the day. Even the common people who were the natural victims of the system seem to have accepted it. Thus the Shakespearian crowds which clamour for the expulsion of one ruler invariably want another in his place.

Such acceptance of the existing system was, perhaps, the result of a primarily pragmatic approach to politics. It did not involve any affirmation of the exclusive significance of the order. The character of the Bastard in *King John* is our guarantee that Shakespeare did not accept the system with uncritical abandon, and that it was mainly an acquiescence, relatively effortless, and rooted in expediency. The Forest of Arden would have been incomplete without a Jacques, and Shakespeare's political philosophy must have room for the Bastard. It proves, if it proves anything at all, that Shakespeare was a dramatist and not a politician.

If we thus recognise the allegorical framework of the play, and appreciate the general nature of Shakespeare's approach to political and social systems, then the given and academic roles of the Prince and Falstaff immediately become clear. The main point I wish to make in this paper follows directly from this understanding. It is that there is no rejection of Falstaff by Prince Hal, for the very simple reason that there cannot be, and that there is not, any acceptance of him. This seems to be an obvious point, so utterly obvious that no Shakespearian critic, as far as I know, has taken the trouble to make it. Even Dover Wilson's right-wing conservatism fights shy of it, and his book on Falstaff, clear and penetrating as it is, does not fulfil its early promises.

The Bradleyan thesis,¹¹ then, of the Rejection of Falstaff, apart from the weakness of its sentimentalization, basically begs the question. Falstaff had to be accepted first if he were to be rejected at the end. And, as I hope to prove, there is no evidence of any such acceptance in *Henry IV*. Shakespearian criticism seems to have assumed all along that Prince Hal grappled Falstaff unto his soul with hoops of steel. In actual fact Hal patronises Falstaff, uses him and enjoys him. At best, for him, Falstaff is the 'stuff to test the soul's strength on'; at worst, he is the buffoon and the jester, and the freedom that he enjoys is the freedom of the fool. He suffers him because he is not his equal, and he patronises him because he is entertaining. What court in all Christendom could claim a clown of such dimensions?

In the first Falstaff scene of the play itself the roles of the two characters are clearly suggested. The scene begins thus:

FALSTAFF: Now, Hal, what time of day is it, lad?

PRINCE: Thou art so fat-witted, with drinking of old sack and unbuttoning thee after supper and sleeping upon benches after noon, that thou hast forgotten to demand that truly which thou wouldst truly know. What a devil hast thou to do with the time of the day? Unless hours were cups of sack and minutes capons, I see no reason why thou shouldst be so superfluous to demand the time of the day.

¹¹ A. C. Bradley, *Oxford Lectures*.

FALSTAFF: Indeed, you come near me now, Hal; for we that take purses go by the moon and the seven stars, and not by Phoebus, he 'that wandering knight so fair'.

And then turn to the Prince's speech at the end of the scene, a speech that has won him many enemies among Shakespearian critics:

I know you all, and will a while uphold
The unyoked humour of your idleness:
Yet herein will I imitate the sun,
Who doth permit the base contagious clouds
To smother up his beauty from the world,
That, when he please again to be himself,
Being wanted, he may be more wonder'd at,
By breaking through the foul and ugly mists
Of vapours that did seem to strangle him.

And then to this, from that delightful scene where Falstaff performs in King Cambyses' vein:

If then thou be son to me, here lies the point; why, being son to me, art thou so pointed at? Shall the blessed sun of heaven prove a micher and eat blackberries? a question not to be asked. Shall the son of England prove a thief and take purses? a question to be asked.

By the side of this we have only to place an extract from the speech of Ulysses on degree to see the symbolism of the sun theme.

And therefore is the glorious planet Sol
In noble eminence enthroned and sphered
Amidst the other, whose medicinable eye
Corrects the ill aspects of planets evil,
And posts like the commandment of a king,
Sans check to good and bad.

The Prince is the future king of England, the sun whose duty is to shine by day. Falstaff and company are the children of darkness; they are the creatures of night, subversive by nature and detrimental to the cause of justice which Hal must ultimately uphold. Hal recognises this from the beginning, even as he recognises the weakness and the strength of the quality that Hotspur represents. 'His life with Falstaff is at once an escape from a present he cannot face and the incubation of a future which he will surely command.'¹²

At the end of the Gadshill scene, seeing the complete discomfiture of Falstaff, the Prince remarks:

Falstaff sweats to death,
And lards the lean earth as he walks along;
Were't not for laughing, I should pity him.

But he cannot, and does not, pity him, except on one occasion when he thinks that Falstaff is dead. A short while ago he had greeted his brother, in a burst of enthusiasm:

By God, thou hast deceived me, Lancaster;
I did not think thee lord of such a spirit:
Before, I loved thee as a brother, John;
But now, I do respect thee as my soul.

Here we have one human being accepting another. A little later in the same scene we have

¹² Tillyard, *op. cit.*

a similar instance of one man affirming another's significance. Brave Percy is dead, dust and food for worms. But, says Hal,

this earth that bears thee dead
Bears not alive so stout a gentleman.

And then he sees Falstaff lying on the ground, a vast quantity of food for worms. This is all that the Prince has to say :

What, old acquaintance ! could not all this flesh
Keep in a little life ? Poor Jack, farewell !
I could have better spared a better man :
O, I should have a heavy miss of thee,
If I were much in love with vanity !
Death hath not struck so fat a deer today,
Though many dearer, in this bloody fray.

Here I see neither acceptance nor affirmation. There is a little grudging, superficial grief and nothing more. And because the man did not have the sense to die gracefully, he had to be dismissed, eventually, with sternness. There is a scriptural echo in the first line of the dismissal speech.¹³ Falstaff was a bad dream that he had in the darkness of the night, but now he is awake and he must do the work of light and of the day.

When thou dost hear I am as I have been,
Approach me, and thou shalt be as thou wast,
The tutor and the feeder of my riots.

That last phrase neatly summarises the role of Falstaff in the play.

I admit that this reading of the relation between Prince Hal and Falstaff attributes a certain inhumanity to Shakespeare's ideal Prince. Nor do I find the translation of a rake into a prig a particularly edifying spectacle. But I suggest that we should try to accept Shakespeare historically before we proceed to enjoy his plays aesthetically. Plato, after all, did not advocate the emancipation of slaves, and Paul did not start a campaign for the emancipation of women. The universality of the artist and the philosopher, Shakespeare and Plato not excluded, is rooted more or less firmly in the particularity of historic periods.

The humanism of the Renaissance and the freedom of the Reformation did not immediately destroy the hierarchial feudal pattern which, if impossibly inhuman by modern standards, albeit, served its purpose during a historic period. Shakespeare accepted Henry V historically, and that was inevitable. But he also accepted the concept of a king of this kind, with its ethical contradiction and political Machiavellism; and this too, I submit, was inevitable. The Prince was a prig, but priggishness, unfortunately, was part of the divinity that was supposed to hedge a king round. To complain that the relationship between Prince Hal and Falstaff, characters in a play that was written in the late nineties of the sixteenth century, is not in the I-Thou category just does not make sense. It was the sentimentalism of the eighteenth century and the secular humanitarianism of the nineteenth that invented the rejection of Falstaff.

It is instructive to trace, however briefly, the change in the attitude of people towards Falstaff down the centuries. In Shakespeare's own day he appears to have been accepted within the limits which the dramatist had set for him. The First Part of *Henry IV* was one of the most popular of Shakespeare's plays, and no doubt its popularity was very largely due to the disproportionate comic element in it. But the enjoyment of Falstaff did not result in any

¹³ Luke 13:25.

romanticization of the man's character. The Prologue to *Sir John Oldcastle*, a play which appeared in 1600, makes it emphatically clear that its own hero is

no pumper'd Glutton . . .
Nor aged Councillour to youthfull sinne.¹⁴

The reference clearly is to Falstaff whose original name of Oldcastle had to be changed, as it happens in the case of most adventurers. In another contemporary play a London citizen asks :

Did you never see
The play where the fat knight, hight Oldcastle
Did tell you truly what this honor was ?¹⁵

On such simple and unquestioning terms he was accepted for more than a hundred years. In 1709 Nicholas Rowe wrote : ' If there be any Fault in the Draught that (Shakespeare) has made of this lewd old Fellow, it is, that tho' he has made him a Thief, Lying Cowardly, Vainglorious, and in short every way Vicious, yet he has given him so much Wit as to make him almost too agreeable ; and I don't know whether some People have not, in remembrance of the Diversion he had formerly afforded 'em, been sorry to see His Friend Hal use him so scurvily, when he comes to the Crown in the end of the Second Part of *Henry the Fourth*.'¹⁶ Here we have the beginning of a reaction, though the major pattern is still accepted. People are beginning to be critical of the Prince, and, under the auspices of a new secular compassion, there emerges a sneaking admiration for Falstaff. In the sixties of the century Dr Johnson re-established the balance. The character of the Prince, according to him, is 'great, original, and just'.¹⁷ As for Falstaff, Johnson could not help loving him; but he could not approve of him. 'But *Falstaff* unimitated, inimitable *Falstaff*, how shall I describe thee ? Thou compound of sense and vice ; of sense which may be admired but not esteemed, of vice which may be despised but hardly detested. *Falstaff* is a character loaded with faults, and with those faults which naturally produce contempt. He is a thief, and a glutton, a coward, and a boaster, always ready to cheat the weak, and prey upon the poor ; to terrify the timorous and insult the defenceless. At once obsequious and malignant, he satirises in their absence those whom he lives by flattering.'¹⁸ And he goes on to point out the moral of the story, with the usual clear-sighted didacticism : 'The moral to be drawn from this representation is that no man is more dangerous than he that, with a will to corrupt, hath the power to please ; and that neither wit nor honesty ought to think themselves safe with such a companion when they see *Henry* seduced by *Falstaff*.'¹⁹

A few years later Maurice Morgann brought out his famous essay. He tells us, introducing a psychological distinction of dubious value, that our understanding of Falstaff should not be confused with our impressions of him. Morgann describes him as 'a man at once young and old, a dupe and a wit, harmless and wicked, weak in principle and resolute by constitution, cowardly in appearance and brave in reality ; a knave without malice, a liar without deceit ; and a knight, a gentleman, and a soldier, without either dignity, decency, or honour.'²⁰ Falstaff is 'this extraordinary buffoon', and he passes through the play like 'a lawless meteor'.²¹

But Morgann's chief purpose is the vindication of Falstaff's courage, and there is no reason to quarrel with the kind of altruism that gives the devil his due. Courage, in any case, is

¹⁴ *Sir John Oldcastle* (1600), quoted in *The Character of Sir John Falstaff* by James Orchard Halliwell, 1841.

¹⁵ Nathaniel Field, *Amends for Ladies* (Published 1639) : quoted *Ibid*.

¹⁶ Nicholas Rowe, *Some Account of the Life, etc. of Mr William Shakespeare*, prefixed to Rowe's edition of the Works.

¹⁷ Dr Johnson, *op. cit*.

^{18,19} *Ibid*.

²⁰ Maurice Morgann, *Essay on the Dramatic Character of Sir John Falstaff*.

²¹ *Ibid*.

an indifferent quality, depending entirely on the context in which it is exercised for its ethical significations. What is important for us to note here is the new romantic altruism which is beginning to disturb the accepted notion of moral values. The Elizabethans had inherited the medieval sense of values, with its clear-cut distinction between vice and virtue. This, no doubt, was based on dogmatism on the one hand and a very imperfect notion of the burden of human choices on the other. The clarity of this limited vision was bound to be obscured by the discovery of multiplying dimensions of complexity in the human predicament. This process of obfuscation in the moral world received a tremendous impetus from the Republican and Romantic movements of the early nineteenth century. And our next critic, who saw the secret of Falstaff in his masterly presence of mind and absolute self-possession, was profoundly influenced by both these movements.

Hazlitt writes: 'Sir John carries a most portly presence in the mind's eye; and in him, not to speak profanely, "we behold the fulness of the spirit of wit and humour bodily".'²² He carries our argument a step further, not through his evaluation of Falstaff which is, on the whole, not untraditional, but through his condemnation of Henry V. Here we have the implied suggestion that Falstaff was more sinned against than sinning. If Falstaff cannot be canonized, at least the Prince can be damned. And this is exactly what modern critics have done. Thus the poet Masfield lashes out against Hal: 'He impresses one as quite common, quite selfish, quite without feeling. When he learns that his behaviour may have lost him his prospective crown he passes a sponge over his past, and fights like a wild cat for the right of not having to work for a living.'²³ Discussing the final dismissal of Falstaff H. B. Charlton remarks: 'It appears indeed as if the family morals are in the blood of all of them, Henry IV, Henry V and Lancaster.'²⁴ One critic, according to Sir Walter Raleigh, 'takes comfort in the reflection that the thousand pounds belonging to Justice Shallow is safe in Falstaff's pocket, and will help to provide for his old age.'²⁵ He is a representative critic not only because he sentimentalizes Falstaff but because he sentimentalizes a Falstaff whom he has not understood. Will Jack Falstaff ever have a thousand pounds 'safe' in his pocket? 'The best comment on this type of critical extravagance is Dover Wilson's. 'A very different kind of poet,' he tells us, 'who imagined a very different kind of Satan, has been equally and similarly misunderstood by modern critics, who no longer believing in the Prince of Darkness have ceased to understand him. . . . It may also be noted that Milton's Son of God has in modern times been charged with priggishness no less freely than Shakespeare's son of Bolingbroke.'²⁶

What I have outlined above, I submit, is the only proper academic approach to the role of Falstaff in *Henry IV*. But it is possible to make a non-academic, and therefore, speculative, approach to his character. Middleton Murry wrote: 'The Falstaff whom the King of England was bound to repudiate was not the Falstaff whom Shakespeare had created. One was a common ne'er-do-well; the other was an incarnation of the very spirit of comedy.'²⁷ There is obvious confusion here, but behind the statement there is the recognition of the relevance of the non-academic approach.

But what may this 'very spirit of comedy' be? The comic attitude is the earthbound attitude, and the comic protagonist is the complete man of the world. His is not the detachment of the objective philosopher, or the emotional extravagance of the romantic poet. He is clever, with all the cleverness that the human instinct for self-preservation can command. He is sober, with the sobriety of a clear and this-worldly vision. He is unmitigatedly human.

²² William Hazlitt, *Characters of Shakespeare's Plays*.

²³ Masfield, *Shakespeare*.

²⁴ H. B. Charlton, *Falstaff*, in *Bulletin of The John Rylands Library*, Vol. 19.

²⁵ Sir Walter Raleigh, *Shakespeare* (quoted).

²⁶ Dover Wilson, *op. cit.*

²⁷ John Middleton Murry, *The Creation of Falstaff*, in *Discoveries*.

And he loudly affirms this humanity, basking in the brief brightness of its utter nakedness. He is, in short, that colossal myth, the Pure Man. He is not a creature, because the term presupposes a creator and introduces incompatible categories of relationship and responsibility. I call him a myth because I cannot conceive of his existence. He can only exist beyond spatio-temporal realities because time and space involve attachments and obligations. Pure matter and pure spirit are sheer abstractions. And if Falstaff is to be understood on these terms, then one must admit with Prof. Stoll that 'the whole man or a tithe of him never trod the earth.'²⁸

But he is not this self-defeating and disembodied comic spirit; he has an existence and a name. And this, I suggest, is at the root of our enjoyment of Falstaff, and also the ultimate cause of his failure. Van Doren rightly observed: 'Falstaff like any other man must have his background, and it had best be a background that moves in time; if he is to be an unkempt knight, there must be banks of knights beyond him in fair dress, in full flower.'²⁹ In such a world there are commitments and responsibilities which constitute the life of mortal man. Man may defy the limitations of human existence, as Hotspur does:

By heaven, methinks it were an easy leap,
To pluck bright honour from the pale-faced moon,
Or dive into the bottom of the deep,
Where fathom-line could never touch the ground,
And pluck up drowned honour by the locks;
So he that doth redeem her thence might wear
Without corival all her dignities.

Man may also deny the implications of life, as Falstaff does:

PRINCE: Why, thou owest God a death.

FALSTAFF: 'Tis not due yet; I would be loath to pay him before his day. What need I be so forward with him that calls not on me? Well, 'tis no matter; honour pricks me on. Yea, but how if honour prick me off when I come on? show then? Can honour set to a leg? no: or an arm? no: or take away the grief of a wound? no. Honour hath no skill in surgery, then? no. What is honour? a word. What is that word honour? what is that honour? air. A trim reckoning! Who hath it? he that died o' Wednesday. Doth he feel it? no. Doth he hear it? no. 'Tis insensible then? Yea, to the dead. But will it not live with the living? no. Why? detraction will not suffer it. Therefore I'll none of it. Honour is a mere scutcheon: and so ends my catechism.

Hotspur who defies life heads straight for tragedy. Falstaff who denies its values immediately makes for comedy, but ultimately ends in tragedy. Defiance and denial both sin against the reality of life and, refusing to accept its 'givenness', accept only death.

To reduce life to a matter of pure comedy, I repeat, is to make nonsense of it. The scope of humour and the power of laughter are limited. 'We laugh cheerfully at the incongruities on the surface of life; but if we have no other resource but humour to deal with those which reach below the surface, our laughter becomes an expression of our sense of the meaninglessness of life. . . . That is why there is laughter in the vestibule of the temple, the echo of laughter in the temple itself, but only faith and prayer, and no laughter, in the holy of holies.'³⁰

Even as the tragedy of terrestrial existence is in constant need of comic relief, the comedy of man's life is perpetually in need of being reaffirmed in the perennial context of pessimistic

²⁸ Stoll, *op. cit.*

²⁹ Mark Van Doren, *Shakespeare*.

³⁰ Reinhold Niebuhr, *Discerning the Signs of the Times (Humour and Faith)*.

realities and tragic potentialities. There is only one sense in which we can have cosmic comedy, and Dante is the master of that all-embracing affirmation.

Why then do we enjoy the denial that Falstaff embodies? I do not know. But I notice an element of the vicarious in our enjoyment. Tillyard would suggest that 'Falstaff was in unseen attendance on Satan in the Garden of Eden to make the first frivolous remark and the first dirty joke, after the Fall.'³¹ And one may be sure that Adam and Eve heartily enjoyed them. We continue to enjoy them too, and also to love the man who makes them. John Bailey put this brilliantly: 'There we feel, but for the grace of God, and but for our own inherent weakness and stupidity, go we.'³²

Falstaff represents one stage in Shakespeare's comic experimentation. The dramatist, we may assume, realised with true prophetic insight the tragic limitations of his comic creation, and rightly rejected it. The happy reconciliation that his comic vision achieved in some of the later plays does not concern us here.

Blood Bank

Everyman too can make the supreme sacrifice,
provided he is healthy, and can spare
a pint or two of his most precious blood.
I study the faces of donors
as they walk into the tall, impersonal building
and are conducted by orderly or nurse
wearing a bright antiseptic smile.
This is so painless and so swift;
there is no agony, no martyrdom
to endure, and in a little while,
they emerge into the world of life and death,
looking more heroic than they remember to have been.

My thoughts are bloody, because I am thinking
of blood, which is the fountain of our love and hate:
of Abel's blood crying to God in heaven,
of blood which is freely shed, than blood which is freely given.

F. R. STANLEY

Editorial

The news of the year is mostly summed up in the Principal's Annual Report. But we must add that the Principal himself has returned at the beginning of the year after six months in Britain during which he was awarded the degree of Doctor of Divinity by Glasgow University, in recognition of his work in such books as *The Way the Truth and the Life* reviewed in the magazine in Volume XXIV, No. 2, *Commentary on St Matthew* reviewed in this number and *The Bright Cloud*. It is also in recognition of his work as Secretary of the Liturgy Committee of the Church of South India, work which has been widely acclaimed in many parts of the world.

* * * *

We began the first term with drought affecting nearly all India, and after the monsoon had set in with exceptional force along the west coast we were still suffering from drought here. One would listen to the radio news: 'Disastrous floods and land slides in Kerala', 'Two Metres of Rain in Six Weeks in Bombay', 'Jamuna Above Danger Level in Delhi', 'All the Rivers in Bihar in Spate', 'Floods in Assam', while at the same time here all our grass was brown and many people in Tambaram having their wells dry had to go considerable distances for water. The dry spell did break at last and we had over three inches of rain in two days, enough to make all the grass green and to refresh us all.

It had been an unusually dry season. The rainfall at the college for the eight months from December to July was less than in the corresponding eight months in every year since 1934-35.

* * * *

We report in this issue of the magazine an impressive series of meetings arranged by the Physics Association of the College.

A party from the Tata Institute of Fundamental Research has again been staying in Tambaram. For records of their earlier visits see the College Magazine, Volume XX, No. 2 and Volume XXVI, No. 2. It was good to take the opportunity of their stay in Tambaram to have a series of lectures on cosmic rays and fundamental particles from Dr M. G. K. Menon and Dr Gohkale.

The Physics Association arranged in the same two or three weeks a number of lectures on Quantum Theory, almost enough to have served as a programme for the year. There were lectures by men distinguished in their own fields like Dr A. Narasinga Rao and Dr G. N. Ramachandran for all of which it is an advantage to have time for leisurely questions and discussion. But on nearly every occasion the meeting was followed by films of scientific interest, which it would really be better to have on some occasion of their own, rather than add them to an evening which has already made great demands on our powers of thought and attention.

We are always anxious in the *Magazine* to report faithfully and vividly notable events in college life; and prefer articles which deal with matters of common interest to members of the college, or arise out of what has been happening in the college. This series of meetings was a very notable event in college life, and the large attendance shows the wide interest aroused. The President and the Secretary of the Physics Association Dr M. A. Thangaraj and K. Visveswaran deserve congratulations on organising the meetings. We have slightly postponed publication of the magazine, for which the normal date is the middle of term, in order to include these reports which the News Editor K. Raghunath has collected.

There were articles in the *College Magazine* in January 1927 and March 1932 on Quantum Theory. And in March 1934 an article on the Splitting of the Atom, an abstract of a paper read to the Physics Science Society. In March 1941 there was an article on atoms and

³¹ Tillyard, *op. cit.*

³² John Bailey, *A Note on Falstaff*, in *A Book of Homage to Shakespeare*, edited by Israel Gollancz.

in November 1945 an article with the title 'The Atomic Bomb'. That was the first number of the magazine after the first atomic bombs and it was the occasion for an article giving a good deal of atomic theory. The aim of the magazine is not now, as it was fifty years ago, to keep its readers informed on matters which should be general knowledge. The articles we have are rather reports of what has been said, thought and done in the college community.

Many other interesting events have taken place in the first few months of the college year, which we have not been able to report so effectively. It sometimes seems to be easier to write for a magazine or journal which is just due for publication than it is if two or three months seems to be available for the writing. This perhaps suggests that college news might well be circulated at more frequent intervals than is possible for a magazine published each half year.

News of Old Students

C. T. Kurien writes:

Like our College, the Stanford University is situated in the suburb of a big city, San Francisco, which is 38 miles to the north. Like our College too, it is also noted for its extensive campus (8,800 acres), well planned and impressive buildings and a rich heritage in the field of education. I don't know if you noticed that the three professors awarded the Nobel Prize for genetics this year were all associated with Stanford—two of them were professors here and the third, 33 years old, is becoming professor next quarter.

California is one of the richest and most mobile States in the Union. This is clearly seen at Stanford. The campus (with 8,800 students and the faculty members) has over 7,000 cars! Accidents are rare on the campus, though, but parking is a big problem. This is where those of us who have bicycles have an advantage over our 'faster' brethren!

I find my life and studies here interesting though my work keeps me busy always. What takes a good deal of my time is the Calculus course that I am taking, with daily home work and frequent tests. What has impressed me most here about the academic programme is the thoroughness with which things are done. The students are made to work and work very hard indeed. Even in a subject like Economics undergraduate students have daily home work, and thus nobody is allowed to lag behind. Five days in the week the students work extremely hard and then enjoy themselves during the week end. The students also give a fair amount of time to extra-curricular activities of various kinds. There are many clubs and societies that promote such activities. Some of these activities—from Sunday School teaching to newspaper reporting—carry 'activity credits'

The University has a beautiful chapel and the Sunday morning services are very well attended. The Chaplain is Rev. Robert Minto from Scotland. Last Sunday we had Canon Bryan Green here. Bishop Manickam visited the University and preached in the Chapel early in January I was told.

I'm eager to get the first issue of the magazine. . . . I am sure that when it comes it will give me a good idea of what is happening there. But it will take about two months to reach me!

How's the work at Pammal getting on? Are there some new volunteers now? The number of patients continues to increase I suppose? Has the milk powder been used up?

Please give my regards to the workers and patients at the Clinic.

Further news on p. 42

A Century After Darwin

It is a hundred years this year since Darwin's theory of Evolution by Natural Selection was first published. It was on July 1st, 1858, that a joint paper by Charles Darwin and Alfred Wallace was read before the Linnaean Society in London. The centenary has been very widely observed throughout the world. In the Madras Museum was arranged a special exhibition illustrating Darwin's work. The interest shown in Tambaram is seen in the following article.

The beginnings of Zoology as a Science can be traced back to the fifth century B.C. For many centuries the chief emphasis was on the natural history of individual animals and species. The sixteenth century renaissance, and the wide-spread rebirth of inquiry led to a great shift in the emphasis to comparative anatomy. Systems of classification of animals inevitably led to a more comprehensive and coherent view of life as a unitary and continuous process recognising all life and living creatures as part of the general order of nature.

The possibility of biological evolution is a very ancient idea. Recently Sir Gavin de Beer has found such ideas in the writings of a number of ancient and mediaeval biologists.

According to Sir William Dampier in his *History of Science*, the idea of evolution was first given a great impetus by philosophers like Bacon, Descartes and Kant rather than by biologists. It was much later that the French biologist Buffon first developed (1749-67) the concept of transmutation of species, later (1794-96) elaborated by Erasmus Darwin, grandfather of Charles Darwin. But the first extensive and coherent theory of evolution was put forward by Lamarck in 1816, which not only held the field for an appreciable time, but paved the way for the later and more lasting theory of Darwin.

Charles Darwin, a born naturalist, seems to have had 'vague doubts' about the fixity and permanence of species for some time. But he was not satisfied with the Lamarckian view of the inheritance of acquired characters. He developed his original ideas first in 1832 and as his son Sir Francis Darwin traces it, the evolutionary trend in his father's thoughts continued to increase in force from 1832 onwards, from the time a copy of Lyell's *Principles of Geology* came into his hands. His views were especially reinforced during his voyage on the *Beagle*, at Galapagos in 1835, and again in 1837 when he was working up the results, mental and material, of his travels into a 35 page sketch, later enlarged to 230 pages in 1844. Darwin himself confessed in his autobiography that his five year voyage on the *Beagle* (1831-36) circumnavigating the world was the sole event in his life that determined his whole career and it was in this voyage that he got a real knowledge of animal life in nature and the mutability of species. But before Darwin could publish his results, his colleague Alfred Wallace, then working in the Malay Archipelago, to whom also the idea of mutability of species occurred independently arrived strangely at the same conclusions of 'evolution by natural selection' as Darwin did, and sent an essay in the Summer of 1858 to Darwin for his perusal and for communication to a suitable journal. At first, Darwin thought of publishing Wallace's instead of his own, but later, at the request of the editors, he consented to present a collaborate paper.

So, July 1st 1858 was the day on which the joint paper of Charles Darwin and Alfred Wallace on 'Evolution as directed by Natural Selection' was first read before the Linnaean Society in London, and the day which marks the beginning of an almost immediate and tremendous intellectual revolution not only in biological thought but in the civilized world as a whole. Those eighteen pages of matter embodying Darwin's and Wallace's views, were like an atomic weapon shaking the very foundations of biology, nay human thought as a whole, establishing a lasting storm of controversy, so that no other theory even in modern time, is said to have stirred up so immediate and widespread and even hostile a reaction from every quarter of the thinking world as the Darwin-Wallace theory of 'evolution by natural selection.'

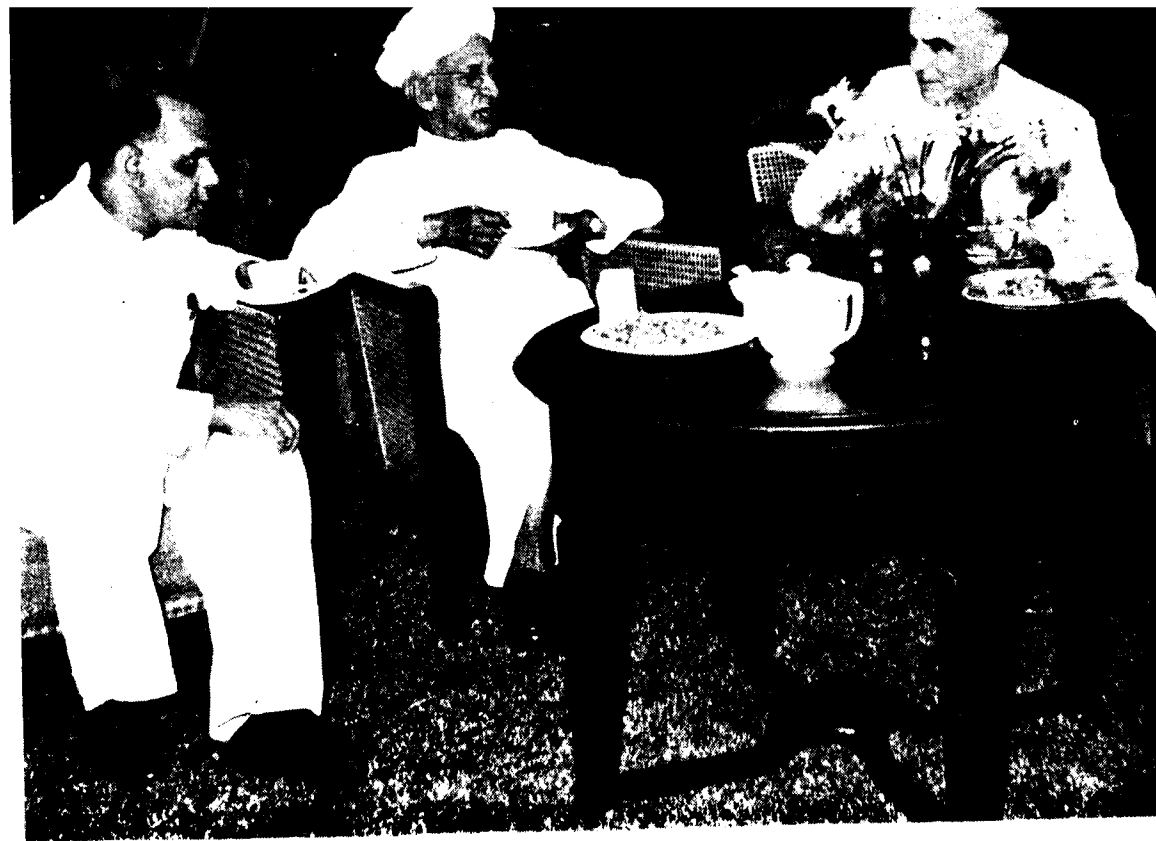
Later, Darwin elaborated his views independently in his *Origin of Species* published on November 24th, 1859, which, as Darwin admitted in his autobiography, was the chief work of his life and which met with great success from the very beginning, so that Ashby Montagu remarked, 'Next to the Bible, no work has been quite as influential in virtually every aspect of human thought as the *Origin of Species*.' It was a tremendous work of twenty years of industry and reflection of the master mind of Darwin, acclaimed as the greatest biological successor of Aristotle. As Sir Gavin de Beer has recently put it on the Centenary occasion, 'Darwin was able to steer a straight course in a largely uncharted ocean of ignorance, with rocks of falsehood right across his path.' In this centennial year the biological world owes a deep debt of gratitude to this 'Newton of natural history' as his colleague Wallace called him, for Darwin gave not only to biology a more logical ground that has stood the severe test of the past hundred years, but a clue to the whole of humanity for its progress. As Julian Huxley remarked, 'In broad terms, the destiny of man on earth has been made clear by evolutionary biology. It is to be the agent of the world process of evolution, the sole agent capable of leading to new heights and enabling us to realize new possibilities.' For this great boon to humanity, Darwin ranks as one of history's towering geniuses and takes a place with the greatest heroes of man's intellectual progress.

Singer, in his *History of Biology* refers to the statement that the whole of modern biology has been called 'a commentary on the *Origin of Species*.' What we have to-day is indeed neo-Darwinian biology. Whether biologists are working under the presupposition of 'Darwinian evolution' or whether an evolutionary interpretation of all biological research is automatic and inevitable, can fully be comprehended only if we apply the test of time, which shows that despite tremendous advances, achievements and discoveries in the multifarious branches of biology during the past century, no other theory but Darwinism can interpret some of the varied and often puzzling facts of evolution. In fact today evolution and Darwinism have become synonymous in our terminology. The early Lamarckian, vitalistic and neo-Mendelian opposition had slowly fallen away by 1925, when Darwinism took a new lease of life and today, it has not only won the approval of all biologists the world over, but has also become the basis of all biological research and interpretation and is now fully and firmly established as the sole agency of major evolutionary changes.

Neo-Darwinian biology in its march towards the present triumphant status had first to fight neo-Lamarckianism into the background and then to analyse the varied implications of the two guiding principles of Darwinian evolution, namely *variation* and *natural selection*. In the analysis of the nature and magnitude, causes and perpetuation of variations, the timely advent of Mendelian 'particulate inheritance' (1865) was a blessing beyond the anticipation of Darwin himself who based his theory on a less favourable 'blending inheritance.' In the past twenty years, Fisher's mathematical technique for the precise analysis of the nature of selective agencies and the circumstances in which they act, greatly enhanced our concept of the exact *modus operandi* of natural selection. The present status of neo-Darwinian evolution theory is such that unlike any of its predecessors, it not only provides a workable explanation even for all the so-called intricate and inexplicable aspects of evolutionary facts but is also susceptible of an accurate experimentation and even prediction. As Julian Huxley expressed it, 'Just as the movements of planets and the path of projectiles could be understood on the basis of the Newtonian postulates and principles, so we are beginning to see how we might understand the trends of evolution on the basis of Darwinian-Mendelian postulates and principles.'

None can guess the future course of biology, its ultimate contributions to humanity, unfolding the hidden mysteries of the vast concourse of creatures that have inhabited this globe ever since the origin of life on this planet, and bringing home to us a fuller realisation of man's role and destiny in it, ultimately resulting we trust in more objective understanding and appreciation of the Invisible behind this masterpiece of creation.

P. J. SANJEEVA RAJ



(above) The Madras Christian College New Delhi Old Students Association met in September. Sri O. Pulla Reddy, I.C.S., President of the College Day Association, Dr S. Radhakrishnan and Dr J. R. Macphail in the grounds of Y.M.C.A., New Delhi, kindly lent for the meeting.



(left) Paul Joseph, Captain of Madras University Volley Basketball Team, (right) greets the Captain of Panjab University Team, whom they defeated in the Final of the Inter-University Tournament, at Jabalpur in November 1957.



Coconut Palms—very like South India



Horse and cart—very like the English country idyl



A group of Bures, houses with the old style of thatching, but with modern spaciousness.



A Fijian Couple

Fiji

'The Paradise of the Pacific'

The fascinating Fiji islands discovered by Abel Tasman in 1643 and ceded to Great Britain by the Fijian chiefs in 1874, form a prosperous British Crown Colony with more than 355,000 inhabitants, comprising many races. Of these 170,000 are Indians, 150,000 natives, 9,000 Europeans, 8,000 part-Europeans and the remainder are Polynesians, Micronesians, Melanesians and Chinese.

The Crown Colony of Fiji consists of 322 islands scattered over the South Pacific between latitudes 15° and 22° S. roughly the same range of southern latitudes as Andhra Pradesh has in the north. The islands lie on both sides of the 180th meridian. In order that the islands should not use different dates for the same day, the International Date Line is drawn to the east of the whole group. Of the islands only 99 are inhabited, the remainder being either too small or possessing insufficient water for permanent habitation. The Capital city of the islands is SUVA.

The pleasant climate of this prosperous Colony makes it an ideal place for a holiday. Temperature extremes are 60° to 90° but in summer it seldom reaches 85°. The coolest months are from May to November, but the other months are by no means unpleasant.

Fiji is administered by a Governor appointed by the Queen. A Legislative Council with five European members, five Fijians and five Indian members make the Colony laws. Out of those five Indian members three are elected by the Indian population and two are nominated by the Governor. The Europeans also have the same system as for the Indians, but all the Fijian members are nominated. Parallel with the general administration is a Colony-wide system under which the Fijians to a large extent control their own affairs.

The population of the country is not a problem at present but stern measures are being taken to prevent it from becoming a problem in the near future. The Indians are in the majority and how they went there is not known to many people here. The Indians were taken to Fiji by the Britishers to work in the sugarcane farms. This was known as the 'Indenture system of labour' (began in 1879 and stopped in 1911). After completing five years of contract, lands as well as citizenship rights were given to those who wished to stay there and those who wished to return were given free return passages. It is believed that among the Indians who went abroad, those who went to Fiji are the most prosperous. The economy of country is in the hands of the Indians—agriculture, business, public transport and taxis. These islands were called by Mr C. F. Andrews, 'The Little India in the Pacific'. The Indians are quite happy with the ever smiling friendly natives.

The natives, known as the Fijians, are very friendly and social. Any Fijian you chance to meet on the road or anywhere, the universal Fijian word of greeting 'Bula' goes with the warm friendly Fijian grin. A simple warmth, a genuine interest that makes Fiji the friendliest place in the S. Pacific.

Typical of the small Fijian villages scattered near rivers and beaches is the group of thatched bures beside a roadside lagoon. Here you will meet the Fijian at home—picturesque, happy-go-lucky and with as lively an interest in you and your way of life as you have in his. In ceremony he may appear fearsome and primitive, but in his village you will find him warm and friendly, with a strong sense of humour. You hear them singing at work and play with

an inborn sense of rhythm and harmony, and if you are fortunate you may see a Fijian dance called 'Taralala', also see the Fijian club dance or even the impressive 'Kava' ceremony traditions of great antiquity. If you chat to the Fijian in his village, he will enjoy showing you the way of life in his village, his palm thatched bure and his family. By seeing all these you will come closer to understanding simple humanity—you will also understand why Fiji is always smiling.

Transportation services include taxis, buses, luxury coaches, railways, airways and shipping. Taxis are available with modern facilities at any time of the day or night. Buses provide frequent services around the main islands with comfortable seats. The Fiji Airways provide daily two flights between Nadi and Suva and other stations on outlying islands. The International airport is situated at Nadi. Inter-island trading vessels carry several passengers and the trips are very interesting. So far as I know the only free passenger train in the world is in Fiji. This train travels up and down little more than 200 miles. It has its own stations but the passengers can stop the train by showing hands out of stations too.

Fiji's black alluvial soil makes the country rich and prosperous. The principal exports of Fiji are sugar, gold, copra and bananas. As an invisible export the tourist industry rates fourth place. Fiji also produces rice, pineapples, green ginger, biscuits, groundnuts, hides, tortoise shell and manganese ore. The sugarcane cultivation is entirely in the hands of the Indians. To crush the canes of the island there are five big sugar mills and the largest in the southern hemisphere is situated at Lautoka which is also a port. Sugar and other products are mainly exported to Great Britain, bananas and pineapples to New Zealand and Australia.

The coral-fringed islands sprinkled across the blue Pacific have their own beauty and glamour. They are cooled by the breath of the tradewinds, sun-swept and star-dusted curving palm-lined beaches, the inshore reef-crested caps of mighty ocean rollers, placid farm lands of sugarcane, rice and pineapples, rugged jungle-clad mountains, beautiful beaches for swimming and picnics, lovely sunset evenings with ever smiling Fijians, saree-clad Indians, colourfully frocked Europeans and every race in the S. Pacific add colour and grace to the passing scenes of this paradise. This paradise has uninvited guests, who force themselves in to make the people alert to be ready for any attack from hydrogen and atomic bombs and even from I.C.B.M.s. Who are they? Can you guess? They are the friendly cyclones and earthquakes. They do no damage except a friendly visit for a second, a minute or a few hours. Apart from the friendly people the jungles are free and safe from snakes and wild beasts. The Pacific is peaceful and above all Nature itself is very kind and friendly towards the paradise-lovers.

NARAYAN R. REDDY.

Cannibalism and Culture Groups

In 1874, in one of the Fiji islands, the British discovered a shocking practice, known as the Taro feast. An entire tribe had been found guilty of some minor crime and as punishment had been condemned to be eaten by the king. For a number of years, the decree continued to operate; batches of prisoners were cooked in huge vats and before the British intervened and saved the remaining population, the good King Thakomban had eaten up quite a number of his obliging subjects. A few years later, a strange postscript was added. The King became a devout Wesleyan.

There are living today, Christmas Islanders and Trobrianders, who can remember the taste of human flesh. There are old tribesmen, who have danced around cannibal fires, in Tahiti. There is also Lamberene, the Central African valley, where Dr Schweitzer went; Lamberene was cannibalistic till the eve of his visit in 1914. His first patient, a small boy, stubbornly refused to see him, believing him to be a cannibal! Somaliland, till the 1900's, knew nothing about burial or cremation of the dead; they were simply eaten. What is remarkable in all these isolated instances and in the many more that could be given, is the ease with which the custom went out of vogue that sets one thinking. How has it come about that while war, slavery, prostitution and a thousand other crimes and follies of mankind persist, cannibalism has proved itself so fragile?

The clue lies in the theory of culture groups. The older anthropology believed in primitive culture. There was something, apparently characteristic of all 'primitive' people, and hence anthropologists quite naturally saw a single primitive cultural pattern, which varied little from place to place. This naive idea was replaced, mainly through the coming of Gestalt psychology. The newer concept is that in the early stages of development, the species *Homo sapiens* existed in multiple, and widely different cultural forms. The significant feature of these culture groups is that, evolving as they did in isolation, they developed patterns of culture quite different from one another. And these culture patterns involve elements, which have meaning only when viewed against the background of the pattern as an integral whole.

This concept explains many unpleasant facts. At one time, all extant civilisations practised cannibalism. A shocking fact, but nevertheless true. Even the Vedic Aryans were not free from this taint, as the researches of Dr Rajendralal Mitra into the customs of the Indo-Aryans, attempt to show. The Aztecs had their elaborate system of sacrifice to the Sun-God, which culminated in a cannibal feast. The Romans had their own brand of war cannibalism. Indeed, the West was never free from it. The Chanson d' Antioche, a medieval poem, makes mention of the banquet given by King Richard in the presence of Saladin's ambassadors, 'where the head of a Saracen curried,

'Soden full hastily
With powder and Spysory,'

and with 'saffron of good colour' was served. The upshot of these facts is this. Civilised peoples have been cannibals, quite as certainly as savages. And that brings us to a central point. Was primitive man inherently cannibalistic? Or was it due to the interplay of other factors that he became cannibal? The nature of man has been a vexed question, to philosopher and scientist alike. The philosopher started with the axiom that the 'savage' was a biologically determined complex, later to be subjected to a set of environmental factors, which could explain his behaviour. This was the 'noble savage' of Rousseau and Hobbes' savage with the 'per-

petual and restless desire for power after power that ceaseth only on death.' More recently, after having lived through two long nightmares, the sage Dr Gilbert Murray concludes that 'man is, by nature, a predatory carnivore.' Anthropology has overhauled all these concepts. Briefly stated, the present evidence goes to prove that none of the behaviour of the savage is due to inherent tendencies. The savage was not airdropped, a ready-made cannibal, brandishing a club over his head and exhibiting a set of ghastly white teeth. Savage culture is not an expression of the natural state of man; it is merely a traditional mode of behaviour. It was not biology, but the growth of a certain type of culture pattern, that determined behaviour. Thus it was that many modes of behaviour grew up, which appear very strange in other contexts. Cannibalism is one of them.

Battas for example; Keane has the following to say about them: 'The Battas of North Sumatra ate their old and infirm. The victim was suspended from the branch of a tree and the members of the clan waited gleefully for the fruit to fall when it was ripe.' And when it did fall, it was hacked to pieces instantly, even while there was life in the body. 'The remains were seasoned with lime juice and eaten with great relish.' Yet the Battas were not savages. They were highly advanced stock-breeders, with high literacy, and, most surprising of all, a highly efficient postal system—the only one of its kind—where the hole of a tree standing at cross-roads was used as a post-box and letters were carried by runners.

How culture patterns grow into traditions is well-illustrated by the Tongatabu Islanders. Captain Cook remarked that though Fiji was cannibalistic, nearby Tongatabu was free from it. The Tongatabuans were, moreover, exceedingly meek. For generations, the Fijians had terrorised them with their cannibal raids. Even the trade-winds seemed bent upon doing them wrong, for many an unfortunate Tongatabuan would drift from home, when the winds went awry, into the cauldron of some neighbouring Fiji island. They had established a culture pattern, and handed it down through centuries, which ruled out the idea of resistance. Numerous other examples exist of a tradition determining behaviour.

Take the blood-revenge, for example. In the Mahabharata, Bhimsen has a blood revenge against his cousin, Dusasana, as the fulfilment of a vow made fourteen years earlier. Yet Bhimsen was not a savage. He was as much at home with dialectic as with his mace. This is only an isolated example of blood cannibalism. What is significant is that blood-revenge was an extremely popular kind of tradition. One is easily taken in by the suggestive picture of the unkempt savage dripping in his enemy's blood, but even our civilised ancestors could carry out similar revenges when tradition so demanded.

The Celts, had, for example, the tradition of eating the brain of an enemy. It was quite common for a victorious chieftain to have the heads of enemy chieftains steeped in hot water, and then have the soup served among his men. The Celts had many other cannibalistic traditions involving homeopathic magic. Homeopathic magic is simply the doctrine which says that if you eat any living being, you imbibe any qualities which you believe it to have. Frazer has collected numerous examples of homeopathic magic in the form of war cannibalism. Relevant here, is the fact that the theory of culture groups is strikingly illustrated by the widely varying kinds of homeopathic magic involved in cannibalism. Among some tribes, it is the heart, among others the liver, and among still others the brain that is most useful from the military viewpoint. There are a few savage traditions which are universal and hence result in similar forms of ritual, but with these exceptions, the rituals resulting from traditions are in general quite individual.

How was it that certain of the culture groups gave up cannibalism earlier than others? And what was the mechanism through which the extant civilisations educated themselves out of it? The most obvious answer would be culture-contact. The Aztecs gave up cannibalism

presumably, through their contact with the Spanish conquistadores. Again, certain culture groups have lived in climates which have nurtured a love of human flesh. There was the old Tahitian who explained to Pierre Loti, the journalist, 'The white man, when roasted tastes like a ripe banana.' Such patterns have been rooted out only through education. In many extant civilisations, however, as well as in culture-groups, a certain pattern of maturation is followed. In order to see this clearly, one must examine the triple fugue of War, Human sacrifice and Slavery. The earliest religions were priest-religions, in the sense that a kind of semi-divinity was attached to a single man, who quite naturally had a considerable quota of 'life-and-death power.' The simplest way of making things safe for himself would be to keep the multitude in constant awe and what would serve better this purpose than the melodramatic appeal of human sacrifice? So long as primitive religious patterns held together, human sacrifice was bound to lead to a semblance of organized warfare, since after having sacrificed a number of their own people, a clan would have found the process an expensive one. They would then have found the need for captives. Now, human sacrifice has always been accompanied by cannibalism, through the concept of the Sacrament. Eating the first fruits of the Sacrament is alone responsible for many cannibalistic rituals. Soon however, it was found that war could be turned to better account. Captives one would still need, but for quite another purpose. Human sacrifice thus degenerated into animal sacrifice and cannibalism vanished completely. The end product was slavery; slavery was coeval with the domestication of animals. Slavery was, further, the sufficient and necessary condition for civilisation. For without it, none of the Aryan civilizations would have advanced as they did. At the same time other culture groups did not learn these techniques quite so well. As a result, they lagged behind.

Today, we carry a passport to civilisation in our portmanteaus. How we abhor the savage and the latter day barbarians. Yet we must remember always that 'primitive' man is not inherently cruel or sadistic. Cruelty is merely the fossilization of a certain pattern of tradition, which is as likely to occur in the twentieth century as it did in the first. Evolve a tradition, and it stays until necessity dislodges it. That appears to be the heart of the matter.

K. RAGHUNATH

It is therefore the duty of the truly educated man to examine the traditions and culture pattern of his nation and community, and to be willing to modify them. The coming of a new and better idea is often the reason for a change of pattern. We are challenged now to evolve a pattern of peaceful living for mankind and any man may have a share in creating the new pattern—Ed.

St Matthew's Gospel

The Gospel according to Saint Matthew Introduction and Commentary

by
J. R. MACPHAIL

C.L.S. Rs. 4.75.

In ancient times, few people bothered to write commentaries on St Mark, because it was thought to be merely an abbreviation of St Matthew. To-day, especially since the discovery that Mark is the earliest gospel, the position has been reversed, and fewer people write commentaries on St Matthew, because it is thought that the story of Jesus can better be studied in the fresher version of Mark. Mr Macphail's commentary is therefore a very welcome addition to our theological libraries and all the more so, because he has not merely let himself be eclipsed by the glory of St Mark, but has striven to bring out Matthew's own emphases, and his own particular flavour.

The chief impression this book leaves on us is of enormous thoroughness in preparation and great freshness in writing.

There is a very good introduction showing the literary relationships of the gospel, and then going carefully into its distinguishing features, this is well summed up in the short section 10 on The Nature and Aim of the Gospel. The Gospel itself is divided into a Prologue, five main sections headed Discipleship, Apostleship, The Gospel and the World, The Church and the Judgement and an Epilogue. It is very difficult to exhibit the structure of such a discursive book as St Matthew, especially since Matthew uses Mark's framework into the bargain, but these are the most natural divisions of the book. In each case, as we want, Mr Macphail gives more attention to the teaching and to any particular emphasis in Matthew, than to the narrative, which is often, by our modern standards, a somewhat colourless abbreviation of Mark.

In this matter of story-telling, Mr Macphail has not idolized his author, and has no hesitation in saying such things as 'How much Matthew misses', or in dealing very honestly

and straightforwardly with what appear to be the less well authenticated stories or legendary additions.

When he comes to the teaching, Mr Macphail gives us a constant series of thorough, scholarly yet simply written notes on a variety of smaller points, such as the meaning of binding and loosing, a note that the Egyptian manuscripts omit Jesus' saying (xvi 2) about a red sky in the morning because this is not a sign of rain in Egypt and so on. Every reader will learn new things here. I do not know if Mr Macphail has been to Palestine, but one guesses so, for the countryside and the scenery appear fresh before his eyes. Along with these brief details are a number of more extended notes covering a very wide range of subjects, such as The Virgin Birth, publicans, hypocrisy, the child-like mind, Pharisaism, The Passover and many others. All are marked by accurate scholarship, a well defined and reasonable point of view and a freshness of style that makes them some of the best things in the book.

Then at the end of the book are eleven essays which give more detailed treatment to subjects arising from the background, the form and the theology of the gospel.

In a later edition could we have a twelfth essay on the value for to-day of a gospel written with Matthew's presuppositions? For many centuries the Church drew its spiritual nourishment from this gospel above all. Today we are less happy about it because of its attitude to history and its legalistic outlook. Is this a judgment of permanent value or a passing phase?

The book is full of quotations from authors learned, literary and general, which will tempt readers to study more deeply or ponder more devoutly.

A few criticisms may perhaps be allowed.

The first arise from this matter of quotations. In spite of many very apt and helpful ones, at times we seem to catch the lover of literature and of good books dragging in his favourite quotations, so that the relevance of the quotations on pages 6 and 47 is not at all clear, and it is at the least a little doubtful

whether Marvell's poem quoted on page 104 is an apt comparison for Jesus' own sense of urgency.

I think, too, we must say that the format of the book is very unattractive. My paper back copy looks much more like the cheap kind of thing one picks up on a railway station than the serious work it is. Again, while all commentaries with notes on individual verses must necessarily have something of a chopped-up appearance, here, the different types, indentations, italics and so on considerably heighten this impression. No doubt this makes reference easy, but it makes it difficult to read the book with a relaxed and flowing attention.

But perhaps the most serious criticism I have to offer arises out of what is one of the book's great virtues. There is a wonderfully strong impression of sober, reverent, honest commonsense in this book, but at times one wonders if this impression has not succeeded in overshadowing the impression left by the gospel itself. This doubt assails one most strongly in two particular issues. Any reader of a commentary on St Matthew will turn early to the Sermon on the Mount. Here, as usual, the detailed notes are very useful, but in a country where a great Hindu has shown us how very literally one can fulfil Christ's great demands, is it becoming for Christians to write 'The words (on retaliation) look like commands. But it would do no good to obey them literally and grudgingly or doubtfully'? One understands

Mr Macphail's desire to bring the Sermon down to the proportions of our daily life, but is not something of its glorious abundance of love and service lost by trying to reduce it to common-sense? The other matter is eschatology. Matthew xxiv passes off without a note on the present day application of this extraordinary chapter, and the essay (No.9) on the Kingdom of God, which speaks more fully of eschatology loses something of the tone of the gospels. It is well to warn us against too literal an interpretation of things not intended to be literal. But to say 'what it (apocalyptic) does say is that God rules throughout time as throughout space: he will be in the End, as he was in the Beginning: and we can go confidently into the unknown, if we know what his will is for each one of us to-day' surely gives quite a different impression from the urgent, end-of-all-things-at-hand, atmosphere of the gospel apocalypses. Which are we to prefer, and why?

But with these reserves, we may say that we have here a commentary that will be referred to constantly by any teacher or student of the gospel, and we may confidently affirm that Mr Macphail has fulfilled the object of his book in writing for 'readers who are inclined to study the beginnings of Christianity thoroughly, and as far as possible with open minds, because they are attracted by what they know of Jesus and want to know him better....'

GEOFFREY PAUL

The Yellow House

Manchal Bangala (மஞ்சள் பந்தலா) By G. Jayaraman, published by Kalaimagal Office, Mylapore, Madras-4. Price Re. 1.

The author of this book Mr G. Jayaraman is a present student of our College. Though Providence has denied him the power to view the external things with the physical eye, it has bestowed on him the more powerful 'inward eye' and the more effective and rare gift of imaginative power. The book clearly reveals the fertile imagination and the descriptive power of the young author. This interesting children's novel was awarded the first prize by 'Kannan' one of the few popular and widely read children's journals in Tamil. The story

was greatly appreciated and enjoyed by the children when it was serialised in Kannan. It is an adventure story describing the strange and horrid experiences of two bright young boys in the mysterious 'Manchal Bangala'. It is full of exciting scenes, hairbreadth escapes and mysteries which will certainly thrill the minds of young boys and girls. The story is written in an easy, simple and pleasant style, easily intelligible to children. The book is printed neatly and boldly, and very well illustrated. Young children will eagerly welcome more such briefly written, well-told stories by this promising author.

S. VENKATARAMANAN

'Taming the Hydrogen Bomb'

The construction of the apparatus which has been called Zeta by which the energy of the fusion of hydrogen atoms can be utilised marks one of the greatest technical advances of this century. The author of the following article calls it a deuterium fire. The metaphor of fire is an apt one: it may be that no technical discovery since the discovery of methods of confining a fire to a hearth, will make so profound a change in men's way of life. The power of fire must have been known to the earliest men. Even animals may know a forest fire: it is the source of the greatest terror to them. When men first became able to make a fire it may have created the same sort of horror as is now evoked by the atom bomb. How long it was after that before men became able to control a fire and confine it to a hearth, we have no means of knowing. But it is a very great achievement that within scarcely sixty years from the first inkling that there was a source of power within the atom, it has become possible to generate this power in a controlled way.

The British Scientists at Harwell, quite recently, attained the phenomenal temperature of 5 million degrees centigrade in their laboratory using an apparatus called ZETA (standing for Zero Energy Thermonuclear Assembly). The prospect of the peaceful use of such an instrument is tremendous and scientists the world over acclaimed it as a historic achievement. Almost overnight the fame of ZETA soared to stupendous heights and outstripped even the 'Sputniks' and the 'Explorers' in publicity.

At present nuclear energy is produced by the 'fission' of Uranium, i.e., by the breaking up of a heavy atom into two roughly equal parts, and each such reaction is accompanied by the release of 200 MeV (million electron volts) of energy. (One electron volt is the energy attained by an electron in falling through a potential difference of one volt. This is an extremely small quantity. An ant to raise a load of 1 m.gm. through 1 cm. spends about 600,000 electron volts of energy. This small measure falls in excellently with the scales reigning in the microcosm.) For a fission reaction a rare isotope* of Uranium, U^{235} , is essential and moreover the disposal of the quantity of radioactive waste materials produced during the fission process is an increasing source of trouble. These two difficulties do not arise if the fusion process is utilised instead.

When 4 nucleii of hydrogen atoms fuse to form one nucleus of helium atom (which has a mass lighter than the 4 hydrogen atoms) a fraction of the mass of hydrogen, 0.7 of 1%, is converted into energy. This is the process going on in the Sun on a colossal scale, 600,000,000 tons of hydrogen fusing every second into 596,000,000 tons of helium. This principle was first employed in constructing the Hydrogen Bomb, where the fusion reaction is triggered off by the heat developed during the explosion of an Atom Bomb in it. Hence the taming of the Hydrogen Bomb has long been the aim of scientists.

On the Sun the cycle of hydrogen fusion takes a time of millions of years and hence this is impractical under terrestrial conditions where the reaction must be completed in a matter of seconds. However, heavy isotopes, of hydrogen, deuterium (H^2 twice the mass of ordinary hydrogen) and tritium (H^3 thrice the mass of ordinary hydrogen) are found useful.

The heavy hydrogen fusion reaction—thermonuclear fusion—can be effected by either the fusion of the nucleii of deuterium and tritium or of the nucleii of two atoms of deuterium. Deuterium is present in large quantities in the oceans while tritium is a rare and much more costly element, since it must be made artificially, by capturing a neutron in the light isotope of Lithium, Li^6 , and the quantity that can be made must depend on the much more limited supply of Lithium in the Earth's crust. Therefore the deuterium-deuterium (D-D) reaction is considered to be of more practical value to produce electrical energy.

* Isotopes are atoms of the same element having different masses.

High temperature is the prerequisite of a fusion reaction. The problem was how to produce such great temperatures and what type of a vessel will confine a gas at that temperature.

Ionised gases interact with electric and magnetic fields. This is the property that has been successfully used in the fusion of heavy hydrogen gas. The heavy hydrogen gas is broken up into the electrically charged components, positively charged protons and negatively charged electrons. This 'plasma' (being electrical), behaves like a conductor of electric current and feeding large quantities of electric current raises its temperature proportionally.

The scientists have further developed a 'magnetic bottle' which acts as the vessel to confine the extremely hot gas. The principle underlying this is that an electric current creates a magnetic field around itself and the interaction between them results in a force directed radially inwards which prevents electrified hydrogen particles from going to the sides of the vessel. These magnetic lines of force create what is known as the 'pinch effect', pinching the gas to a narrow column inside the material container, thus preventing the hot gas from touching the walls of the container.

Though the scientists of U.S., U.S.S.R., and U.K. have succeeded in attaining a temperature of 5 million degrees centigrade (for a few milliseconds) there is one distinct difference in the apparatus used. While the U.S. and U.S.S.R. scientists employed a straight discharge tube (the container of the 'plasma') the British used a doughnut shaped discharge tube called a torus. The British method is supposed to have several advantages over that of its American and Russian counterparts.

The phenomenal temperature attained is actually negligible compared to the energy-input—hence the term Zero Energy. In ZETA the discharge tube is an aluminium 'torus' of one metre bore and three metres mean diameter. A current up to 200kA is sent through the gas for several milliseconds (this period being much larger than what the previous scientists have used). An axial magnetic field is provided by coils around the 'torus' and can be varied up to 400 oersteds.

At high temperatures the heavy hydrogen atoms are stripped of their electrons. Consequently they cannot emit any spectral lines and hence the temperature cannot be determined. Therefore impurities like oxygen and nitrogen are injected into the 'torus' and the observation of the Doppler broadening of their spectral lines gives an indication of the temperature.

It was by the detection of neutrons in the reaction chamber that the Scientists claimed that the thermo-nuclear fusion reaction had taken place. But in the U.S. stray neutrons with a non-isotropic distribution were found during the reaction which obviously indicated the presence of some kind of an accelerating mechanism probably due to the instabilities in the pinch discharge. Though it has not been conclusively proved that a thermonuclear fusion has taken place the prospect is definitely rosy.

An instrument called the 'Thermionic Converter' has been developed by Volney C. Wilson of the G.E. research laboratory at Schenectady. This can be used to convert heat directly into electrical energy. It is supposed to have an efficiency of 30% and is now in the final stages of production.

Thus even though the practical applications of thermonuclear fusion reactions are still far off, the taming of the Hydrogen Bomb to produce veritable oceans of electricity from the waters of the world's oceans, lakes and rivers has been brought within the reach of man, its realisation being merely a matter of time, measured possibly in decades.

JACOB GEORGE KURIYAN

Dreams

The word 'dream' is a very common one, and no other English word means quite the same thing. 'Vision' belongs to waking consciousness and the word 'hallucination' carries with it a sense of unreality and a disturbed state of the mind. It is rather strange that a phenomenon which has been so common to humanity and which has carried with it so much of superstitious belief should have only one word to describe it.

Probably no other word has been more abused than the word 'dream'. Yet this term stands for one of the greatest mysteries of human experience, which, from prehistoric times to the present day, has caused mankind so much wonder and amusement. It is a kind of a life occurring in our sleep over which we have absolutely no control. It could be another kind of consciousness. Sometimes we hear of dreams coming true which makes the whole experience rather difficult to comprehend. In the light of the fact that some dreams come true we can probably understand soothsayers predicting events correctly and priests interpreting dreams in the temples of God. Hence we notice that all over the world dreams have held a great place in the myths and beliefs of people.

Even the Bible, both the Old and the New Testaments, reminds us of the importance of dreams to the Hebrews of those days. Similarly it is true of other races where dreams have been held of great importance.

A belief which was very widely held (and which is popular even to-day among many people) was that during sleep, the soul left the body and wandered about, like a butterfly, on its own adventures. Even to-day, the Burmese use the symbol of the butterfly. On account of this very popular belief, it was considered very dangerous to wake a person during sleep, because the soul, which might be wandering somewhere, might not be able to slip back into the body in time, which would mean very fateful consequences to the sleeper! Of the many other beliefs, one was that the soul refreshed itself by means of dreams. It was also believed by many that dreams were a medium of locating hidden treasures, foretelling the future or even bringing revelations of a spiritual nature. Incidentally there were some people who believed that dreams went by contraries: whatever one dreamt was the opposite of what would happen. But with the birth of the new subject Psychology, dreams have been taken out of legend, superstition and fraud. A great deal of study has been conducted on the subject by great psychologists like Sigmund Freud.

Usually dreams experienced by people are mainly visual. We sometimes do hear sounds, conduct conversations and hear music, but dreams are primarily seen. This would seem rather impossible for people who were either born blind or who became blind in infancy, and many feel that the dreams experienced by the blind are made up of other sense impressions. But Dr Helen Keller, in her autobiography, quotes instances where she has had visual dreams of landscapes etc. We would say that this could be attributed to infant memories but when we consider the fact that she went blind at the age of nineteen months (after an attack of scarlet fever), we are forced to believe that visual dreams can also be experienced by people who have lost their sight at very early ages. The great majority of our visual dreams are hazy, silly, illogical, sometimes terrifying and sometimes even obscene, and we forget most of them on waking. The element of colour is comparatively rare but psychologists say that coloured forms have been perceived in dreams.

There has not been much of mystery about ordinary dreams. Many physical reasons have been held responsible for the occurrence of dreams: indigestion, an awkward position of the head, some of the organs of the body in a disturbed state, heat, cold, bits of conversation, or reading that is still lurking in the memory. It could also be due to worry, or, as Freud said, 'suppressed desires'. He said that two psychic forces went to make a dream: one constituted the wish expressed by the dream while the other acted as a censor upon the dream

resulting in a distortion of its expression. He claimed that the submerged wish was always a sex-desire. Freud had all his interpretations of dreams based on sex. More recent psychologists recognise that other basic instincts have also an important part.

But dreams that come true are very mysterious. These dreams baffle most of us and we wonder how it is possible for a person to dream of something which is either happening miles away or which is to happen. Ordinary dreams are easily forgotten but dreams that come true are sharply distinct and are usually unforgettable.

Thus in dreams, we have found a challenge. Dreams, so common and widespread, have baffled mankind for a long time. Slumber has always been the beginning of such working of the human mind. As Sir Thomas Browne once said: 'We are sometimes more than ourselves in sleep, and the Slumber of the Body seems to be but the waking of the Soul.'

K. R. CHANDRAN

Talking of Gatherings

Looking at the daily decoration of our college notice-board, even the most superficial observer will be bound to admit that ours is not an institution specialising in book-worms and home-birds, after all—but that it is a college of 'clubbable', budding social organisers.

I am a peace-loving student who cares more for solitude and the company of books than for anything else; and though I am otherwise negligent about the outer world and its proceedings as long as there is a room for me with a bed to sleep in—I could not help being social in the first term of this year, when a lot of important things were happening.

The first and the foremost was the Hostel Day celebrated at Guindy (the greatest event in the life of a student year after year, I believe), where the fair sex exhibited their skill in endeavouring to sing, dance, act, and, to make the long story short, to entertain. I hear from admirers that they did have a tremendous success: and I have no reason why I should contradict their opinions.

In the inaugural address to the College Union the illustrious Vice-Chancellor of the Madras University reminded the present students of the fact that he too was a product of M.C.C.; for my part I was interested and I know some of my neighbours were too, for I could see them gape and gape till the end of it.

The college-day celebration went off with a bang. The Principal's report was the event of the day and so was the speech made by the chief guest Mr. C. Subramaniam—but I cannot tell you what ensued for I was not interested, and I found myself agreeing with almost all the listeners. Anyway, great was the day, and while the prize-winners will remember it as a red-letter-day, we mundane students will hail it as the second biggest show of the year.

'Can husbands beat their wives?' This was the subject of a debate in which budding husbands and wives-in-the-making argued at length on this crucial problem of their future life. It was—excuse me, I shall rather not pass comments about it (in self-defence) but one felt that it would have been better if someone experienced in the line had given us a few details of this kind of adventure.

The Malayalees celebrated 'Onam' in a grand manner and the best part of the programme was the entertainment they provided us with. That funny little school-teacher impressed in spite of over-acting. I frankly declare that I was pleased with the whole show, though I see dance-lovers looking at me with spite.

The greatest news of the year is that the B.W.A. (Book-Worms Association) has been dissolved. All the five hundred and odd members of this association have decided to extend their sphere of activities in future.

A R C

News of Old Students

Miss Floris Rajiva (English Honours, 1955-58) is working as Lecturer in English on the staff of Hislop College, Nagpur. She writes to say that she likes her work and has found many new friends in Nagpur.

N. George Joseph (English Honours, 1943-46) was the Secretary of the Calicut Y.M.C.A. till 1957. He was in America for a year, studying theology in the Union Theological Seminary, New York, and visiting Y.M.C.A. centres there. He returned to India in August this year, and is now on the national staff of the Indian Y.M.C.A. He is in the Department of Development, and has his headquarters in Madras.

M. S. Raguraman, B.A. (Hons.); (1951-56) brother of M. S. Venkataraman, tutor in Mathematics, has passed the I.P.S. examination held in September 1957. He has been appointed as Probationary officer and will be leaving for Mount Abu for training.

Miss Shirley Roberts (1955-57) after one year in St. Christopher's College is now on the staff of Stanes School, Coonoor.

Miss Laura Sundaresan (1954-57) won the prize for the best student in the B.T. class in St. Christopher's College 1957-58, and is now on the staff of W.C.C.

D. Henry Thiagaraj (1952-57) who was President, College S.C.M., 1956-57, and Advertisement Manager for the *Magazine*, 1953-54, and wrote articles in the November 1953, November 1955 and November 1956 issues, writes in a private letter:

The World Brotherhood Movement which started at the Unesco House invited me to organize the Madras Branch and to be its full-time secretary. I was working under the guidance of Sri C. Subramaniam, Minister for Finance and Education of our State, and organized a seminar on caste, etc. The Minister liked my work and gave me a good deal of help to send me abroad. He is a fine man and I liked working for him.

I left India on 10th September 1958. Till 9th September 1958 I didn't know that I was going to leave for the United States as I had no money for my travel. Then a foundation grant to meet my air transportation to the U.S. came and I left India on 10th evening to the surprise of many of my family people, parents and friends. I flew over interesting places: Bombay, Dahanu, Cairo, Athens, Rome, Milan, Geneva, Paris, New York and Chicago where I spent a night in a college Professor's house.

I work 12 hours a week for the Graduate Department of Psychology and am taking 16 hours a week, a course to major in Clinical Psychology. Yesterday I spoke for the Illinois School for the sight saving and the blind in this town. I was amazed by the questions put by the children ranging from 8 to 18. To-morrow I am speaking at a Methodist Church.

Can you make a mention of my present position in the College Magazine, so that my friends to whom I cannot write, can know where I am?

Are there any of our college people in the State of Illinois or in Chicago? I will be interested in knowing them.

Mrs Rani Siromoney writes from Bucknell University where she was taking an orientation course:

'We have taken a room quite close to the campus. You will be interested to hear that there are sixty of us from thirty-three different countries. We have a very nice time getting to know different peoples. The program includes regular classes, (pronunciation, grammar and composition, etc ! !) sight seeing tours, picnics and visits to farms and families. Students from other countries are rather poor in English, and perhaps for that reason they have introduced these lessons . . . One great benefit these classes are doing for me, viz. training me to sit in a class for three hours and listen to lectures . . . The staff members are making all efforts to make us feel homely and people are very friendly . . . This town is very nice and quiet. The campus too is green and lovely with lots of big old maple trees . . . We go back to New York on 3rd September and Mr Devanesen is leaving New York the same day. We will try our best to meet him, but it looks as though it may not be possible.'

In a later letter from New York she writes:

'Classes have begun for us and we are very busy studying . . . It is getting colder now—nights are chilly. I don't have a warm coat, but to-day I had a letter from a "garment factory," that I will be getting one as a gift. When we were at Louisberg we went to visit this factory and the man in charge picked on me to try various coats. Since none of them fitted me properly he promised to make alterations and send me one. That was nearly two months ago and we have not heard from him at all and so had lost hope of getting one. I am living in Johnson Hall, the dormitory for graduates women students of Columbia University. It is about three furlongs from my husband's room, but we try to have one meal together everyday. At the opening dinner for PARS (i.e. the group of which my husband is one—"The Program of Advanced Religious Studies") I was sitting next to the President Van Dusen . . .'

S. Raghavan (Zoology Honours, 1950-53) has become an assistant in the Central Secretariat, New Delhi.

R. Desikan (1949-51), who wrote in the *Magazine*, Vol. XXIII, No. 1 (November 1953), on *Leprosy Relief and the Student* is now Development Officer in the Southern Languages Book Trust, Madras.

K. Veeraraghavan (1950-53), after four years as a lecturer in the College, has accepted a gazetted post as Assistant Meteorologist, and is now in New Delhi.

Florence Theophilus, one of the first women students in Tambaram (though not of course in the College) is studying in Cornell, U.S.A., and hopes to take a Doctorate.

Rachel Phillip is in Toronto University, Canada, doing Zoology. She passed through Britain on the way and called on Mr and Mrs Macnicol in Edinburgh, and gave great joy to the children in one of the schools Mr Macnicol has been teaching in, by visiting them to tell them something about life here.

Sarah Thomas was married in Christ Church, Madras, in April 1958 to Mason Olcott Jr who spent much of his boyhood with his parents in North Arcot. They are living in the U.S.A.

Kamala Devaraj (1949-51), after one year in the University of Tennessee where she did M.S. in Child Psychology, is now the head of the department in Psychology in Women's Christian College.

Ranjini Pithavadiyan (1952-55) has returned from her year's stay in Selly Oak, Birmingham, and is now on the staff of Women's Christian College.

Shanthi Manuel (1952-55) after two years in Lady Doak College is now on the staff of Women's Christian College.

C.M. Bollamma (1954-57) is working in the British Council, Madras.

Janet Chelliah (1955-57) was married in July 1958 to Mr Sundararajan who is working in the A.G.'s Office.

Mangalarani Benjamin is on the staff of Women's Christian College.

C. Jacob (graduated 1940), son of the late Bishop C. K. Jacob, is now known as R. J. Korula. He has married **Rebecca Cherian** (graduated in 1941). He is Director of Central Agencies and has just returned from Glasgow after a stay of six months with their firm there. His wife accompanied him on the tour.

R. A. Seetharamdas (History Honours, 1953-56) is now Publicity Officer in the A.I.R., Madras.

P. M. Mathews (Physics Honours, 1947-52) has been for four years doing research at A. C. College, Guindy, and received the Madras Ph.D. degree. He has since had two years in Ottawa, Canada, with a research fellowship given by the National Research Council of Canada (Division of Pure Physics). This year he has accepted a fellowship in the Brandeis University, Waltham, Massachusetts, U.S.A.

O. T. Ravindran (Philosophy M.A., 1956-58) is now working in the British Information Services. He was on the editorial committee of this *Magazine* last year, and was the creator of many colourful posters decorating the College notice boards.

V. Devarajan (Mathematics M.A., 1951-53) is in the Audits and Accounts Service and is Superintendent of Post Offices in Bezwada (Vijayawada).

G. H. Jansen, Literary Editor of the *Magazine* in 1938, is in the Indian Foreign Service. He has been Consul in Beirut during recent months, and welcomed Dr Macphail during a twenty four hours halt on his return from Scotland in June.

Notes on Contributors

P. Chenchiah, M.L., is retired Chief Judge of Pudukottah State. He is the eldest brother of Professor S. P. Adinarayan. He graduated from this College in 1905.

S. P. Appasamy, was a student in the college 1934-38, and completed his M.A. in English 1939-41. He was a student editor of the *Magazine* 1937-38. He is now Literature Secretary for the Council of Y.M.C.A.'s of India and Ceylon.

Narayan R. Reddy is the Student Chairman of Bishop Heber Hall, and is in his fourth year. He was born in Fiji where his father migrated many years ago. He learnt both Hindi and Tamil before leaving home.

K. Raghunath is News Editor for the magazine. He wrote in the last volume on Arabic and Persian words in the English language.

Jacob George Kuriyan, son of George Kuriyan, Professor of Geography in Madras University, is in the Physics B.Sc. classes.

Dr A. Narasinga Rao was on the staff of this College more than 35 years ago. Since then he has been for many years Professor of Mathematics at Annamalai University, and more recently at the Madras Institute of Technology.

T. K. Thomas is lecturer in English and has recently returned from one year's stay in Chicago. He is now Assistant Editor of the *Magazine*.

P. J. Sanjeevaraj is lecturer in Zoology. His last article for the *Magazine* was in the November 1956 issue.

F. R. Stanley was a student of this college and after several years as lecturer in Annamalai University has this year joined our staff. He has had a number of poems published in the *Illustrated Weekly of India*. One was in this *College Magazine* in Volume xxvi, No. 1.

MAGAZINE EDITORS

Editor : Dr W. F. Kibble

Assistant Editor : T. K. Thomas, M.A.

Literary Editor : V. A. Subramaniam

News Editor : K. Raghunath

Class Editors : Arabinda Bhattacharya

Miss Vimala Herman

Miss Indeera Lall

Halls

Bishop Heber Hall

Warden—Rev. G. C. Martin, M.A.

Chairman—Narayan R. Reddy

General Secretary—S. Panchalingam

Secretaries —

P. Kulendran (*Literary & Debating*)

Loga Paul (*Reading Room*)

A. Iruthayanathan (*Entertainment*)

S. H. L. Aliyar (*Indoor Games*)

T. Mahendran (*Outdoor Games*)

Jacob P. Thomas (*Non Vegetarian Mess*)

S. Sudarsan (*Vegetarian Mess*)

Life in Heber began with the 'welcoming' of the Juniors, who by their enthusiasm and vigour showed that they would make a happy lot of Heberians this year. The 'hat-night' enabled us to discover hidden talents among the Juniors.

The Non-Residents' Social, held on July 16, 1958, was a grand success. It brought out the cordial relationship that exists between our residents and non-residents. We celebrated Independence Day with a flag-hoisting ceremony at dawn. Children from the R.S.L. village were entertained at Heber.

A surprisingly large number of ex-Heberians turned up for the Graduates' Reception which took place on August 20, 1958. Our congratulations and best wishes to the new graduates.

The inaugural address of the Literary and Debating Society of Bishop Heber Hall was delivered by Dr Claude B. Cross of the American Consulate. His talk on *American Democracy at Work* was very instructive.

The General Body Meetings continue to be lively and interesting. If the discussion at these meetings is any indication of the standard of debate, then, we are sure, that the country will not be wanting in good politicians in the future.

In the field of sports we still continue to lead. The College provided the Madras University football team with four players this year, of whom two are Heberians. The

College Football, Basket-ball and Tennis Teams are ably captained by Heberians. Heberians form the nucleus of the College Debating Team. The College Union Chairman, a member of this Hall, is also the Vice-President of the U.N. Students' Association of India, Madras Branch.

The second term has begun with a hive of activity for the preparation for our Hall Day which, through the joint-cooperation of our staff and students, we hope, will be a grand success, as usual.

S. PANCHALINGAM,
Gen. Secretary.

Selaiyur Hall

Hall Cabinet :

Henry John—General Secretary

A. K. Dutt—Literary and Debating Secretary

B. Gunaratnam—Games Secretary

Lall Singh Gill—Non-Vegetarian Mess Secretary

S. K. Krishnaswami—Vegetarian Mess Secretary

P. Rajgopalan—Entertainment Secretary

S. Annalingam—Reading Room Secretary

V. S. Chakravarthi—R.S.L.

Selaiyur heralded the academic year with the traditional, though controlled, welcome to the new Selaiyurians who were officially received into the Selaiyur family on the occasion of the 'hat night'.

Our hall settled down soon to the Selaiyur pattern of life. The Non-Residents Social which was the first eventful day in the hall drove home to all the idea that the non-residents were no less Selaiyurians than the residents. A modest entertainment cheered our guests.

Independence Day was celebrated in a fitting manner. Our Warden inaugurated the day's celebrations when he hoisted the national flag at 7 a.m. before a big gathering.

Our R.S.L. Secretary executed a crisp plan of games and entertainments for the school children and the Radio Secretary seized this opportunity to blast their ear drums.

The General Body meetings serve adequately as an outlet for suppressed emotions. Selaiyurian eloquence is represented here in all its diverse forms.

The Hall, served as it is by an energetic band of secretaries who draw their inspiration from the sage counsels of our Warden, promises a fruitful year of activities.

HENRY JOHN,
Gen. Secretary.

St Thomas's Hall

With the beginning of the academic year, the Hall plunged into a period of intense activity under the able guidance of Dr M. A. Thangaraj, our Warden. In keeping with the tradition of St Thomas's, the new entrants were given a rousing reception. This year we have a lively set of juniors who are ever ready to render their willing support and co-operation to make the hall activities a success.

'Hat night', the closing feature of the Initiation ceremony, was celebrated on July 4. Both the seniors and the juniors enjoyed the function. The non-resident's social was conducted on July 16, 1958. The non-residents enjoyed the hospitality of the resident members of St Thomas's Hall.

The solemn ceremony of the inauguration of the Hall Parliament was performed by our President, Dr M. A. Thangaraj, on July 11.

The speaker, M. Iqbal Rahuman and the following members of the Cabinet were sworn in: Messrs M. K. V. Nalliah, Jacob John, K. Srinivasan, T. Ibra Lebbai, K. Sathyendran, P. V. Arulpragasam, V. Jagatheesan and N. K. Narayana Iyer. Our parliament meetings continue to be as lively as ever, training as they do some of our potential future orators.

Independence Day was celebrated with the usual gaiety. In the morning we enjoyed ourselves by conducting a tug-of-war competition between the various blocks. Some of the poor around Tambaram were fed by us in the evening of this happy day. The Graduates' Reception was celebrated suitably. Most of the graduates from St Thomas's Hall honoured the occasion with their presence. We congratulate them on their varied successes and wish them all a great future.

Our Literary and Debating Society was inaugurated by Rev. Father Arulsamy of Loyola College. He spoke on the cultural heritage of Europe. Our discussion group, the Lyceum, is the seat of learning for St Thomasians, where views and opinions are exchanged and lively discussions follow learned talks. Our energetic secretary, Somnath Sapru continues to give the best to the intellectual well-being of the Hall.

Life in St Thomas' is as usual calm and undisturbed—and this is in no small measure due to our Warden.

M. K. V. NALLIAH,
Gen. Secretary.

Societies

College Union

We began our activities for this academic year with a debate to select the College team. This is quite a strange procedure, but not an unusual one. A Society, generally starts the year with its inaugural meeting, but . . .

On 30th July about twenty speakers, including two women, in a battle of wits, displayed splendid talent. The topic for the debate was, 'Religion has no place in the modern world'. A team of four was selected with P. T. George easily topping the list. Two years ago, for the first time in the history of the Union, two women were selected to represent the College; K. Sarala, by making the team this year, has maintained that achievement. The other two in the team were E. V. Joseph and K. Ahmedullah. In recent years we have nearly always occupied one of the top places in the Inter-Collegiate and other debates. The responsibility of the above quartet is therefore great. They have the ability and no doubt they will keep up the tradition.

Following this debate we had our inaugural meeting. Dr Lakshmanaswami Mudaliar, our Vice-Chancellor, spoke. In a talk punched with humour and good sense he told us of his life in the Madras Christian College. His very valuable advice was well received and I am sure most of us learnt a great deal.

Earlier that day we had entertained a COSEC* delegation to lunch and showed them around our campus. The delegation consisted of student-representatives from Sweden, Australia, Bolivia, Ceylon and Malaya. Quite an international gathering! They were tremendously impressed with what they saw; what they ate, they must have held in veneration what was fairly mild for us must have had 'multiplier effects' on their stomach!

The end of the month (August) saw the departure of our Vice-President Mr K. Subrahmanian to the U.K. We were all very sorry to see him leave but were heartened by the news that he would be away for only a year. I must express my very deep gratitude to him for all the help and guidance that he has given us. Mr G. R. Karat is our new Vice-President.

'Can Husbands beat their Wives?' formed the subject of our next debate. One would assume that the reply would be a 'no', but the House thought otherwise. I do not know whether it was really the brilliance of the speakers for the motion or whether the 'men-majority' house was only 'ragging' the 'women-minority'. The evening, nevertheless, was entertaining. The men really did not mean what they said—and the women knew this! The speakers who took part were E. V. Joseph, P. T. George, K. Sarala, Clifford Martin, A. K. Dutt and Betsy Mathews.

This seems about all there is to say about our activities in the first term. We seem to have made a fairly good beginning. We hope to maintain our form.

If we have achieved anything then our thanks should go to Dr Macphail, Mr G. R. Karat and K. Kasim. Kasim especially has been a great help. We have also good reason to be proud of him as he has been elected Vice-President of the Madras Branch of the United Nations Students Association of India.

Finally, a very big and a very grateful, 'Thank-You' to the members of the College Union. I do hope they will continue to help and co-operate.

S. RAY,
Secretary.

The Christian Union (S.C.M.)

Ut omnes unum sint

The Committee:

Staff Advisers—Mr J. M. Healey.

Mr George K. Mathew.

President—W. Joseph Jeyaraj.

Vice-President—Miss Sarah Elias.

General Secretary—D. P. Niles.

Treasurer—G. Thambithurai.

R. Sq. Secretary—V. J. Chandrasekaran.

S.V.F. Secretary—J. Thomas K. Daniel.

Study Secretary—Sam. V. Ariarajah.

Sunday Schools' Secretary—Alfred Stephens.

Drama Group Secretary—K. C. Mathew.

St Thomas's Hall Secretary—Simon

Augustus.

Selayur Hall Secretary—Reginald Abraham.

Bishop Heber Hall Secretary—Morrison

David.

Women Students' Representative—Miss

Vimala Herman.

Non-Residents' Representative—Samuel M.

Isaac.

Representative for Villas (unofficial)—John

Benhar.

T. Mahendran (ex-officio)

We began this academic year with the Committee Retreat on Monday 23rd June, 1958, under the leadership of Mr J. M. Healey, to prepare ourselves for the tasks before us. Then the first fortnight was spent in meeting the new students and getting them interested in the activities of the S.C.M. In the Halls informal meetings were held to make them feel at home in the Movement. The usual Freshers' Social took place in the Anderson Hall on Thursday 10th July, the President presiding, at which the Principal Dr Macphail spoke. The Sunday following we had our Staff-Student Retreat.

The Rural Service Squad (R.Sq.) continues to do its inspired work at the Pammal Leprosy Clinic. This year the number of patients on the rolls has gone up to more than 2300. Though the volunteers are few in number, under its able Secretary, the work of the R.Sq. is steadily progressing. Worth mentioning is the fact that this time

at the Annual Meeting of the Hind Kusht Nivaran Sangh (Madras Branch) held on the 29th September at M.M.C., under the presidentship of the State Governor, Sri Bishnu-ram Medhi, the R.Sq. was represented by its Secretary and the President of the S.C.M., and Mr G. R. Karat, Honorary Senior Secretary, N. Tamilnad S.C.M. At the beginning of the second term the R.Sq. arranged a meeting in the Bishop Heber Hall theatre on Friday the 3rd October, with Dr Kibble in the chair. Dr K. Ramanujam, Central Institute of Leprosy Teaching and Research, addressed the gathering on 'Leprosy and You'. The success of the meeting was noticed in the number of new volunteers added to the Squad in subsequent days. We are planning to hold a three-day camp at Pammal in December, with the help of the S.V.F. to educate the local people there on the harmlessness of running the Leprosy Clinic since they are much afraid that the disease may infect them.

The Student Volunteers' Fellowship, apart from its usual evangelistic work at Tambaram Sanatorium, and the cottage prayer meetings at the 'Model Village', has this year started conducting evangelical meetings within the Movement, now and again. Its first meeting was on Wednesday 23rd July when all gathered for a Fellowship Breakfast at Bishop Heber Hall staff tiffin room with the Rev. Mr Ten Brink as the chief guest. On October 8, we had another meeting at which Miss Joshua of the National Missionary Society gave her witness to the Lord. Now the Fellowship is determined in collaboration with the other groups of the Movement to revive the old prayer cells among the members. Already two cells have sprung up in Bishop Heber Hall and soon the other Halls too will follow it. The Secretary of the S.V.F. deserves our congratulations.

The Study Groups also are carried on very effectively. In the first term the students actively participated in the discussions on topics like 'Christianity and Communism', 'Race and Science'. From the second term onwards we have decided to study the Life and Mission of the Church, the new three-year study-teaching project launched by the World Student Christian Federation this year.

* Coordinating Secretariat of the International Union of Students.

Messrs Healey, Abel and Gnanadoss are helping the members of the Groups.

The Sunday Schools work is growing from strength to strength. There are nine schools handled by sixteen 'teachers'; and at present more than 500 children are on the rolls. Mrs Healey has taken charge of preparation classes, in the absence of Mr G. Siromoney who is now in the United States. On Sunday 12th October, the Sunday School Teachers' Retreat was held in the College Staff room. November 2nd is the World Sunday School Day to be observed throughout the world as a 'Day of Prayer and Thanksgiving for the Christian Nurture of the Young'. The Secretary is thinking of sending some selected children to the City Sunday Schools' Rally on that day. Again they are also actively preparing for the Christmas Rally to be held on the 23rd of November.

The Drama Group is a silent and yet active branch of the S.C.M. Like a lighthouse, at regular intervals, it throws its light into the dark distance beyond the boundaries of the Movement. It meets fortnightly for Bible study, play reading and singing spirituals, with the help of staff-members like Messrs George Mathew, F. R. Stanley and Josef James. They provided inspiring negro spirituals at the College as well as the Area Freshers' Socials, and presented a scene from D. H. Lawrence's biblical play 'David' at the Annual Provincial Camp this year. At present they are busy in their future plans for a big Area venture in the third term to raise funds for the delegates to the Summer College for the Life and Mission of the Church.

Among other things worth reporting are: 25th July, a meeting of the women students at Guindy with Miss Kiran Caleb, National Headquarters; 31st July, a prayer meeting of the 'villa' residents at Mr Karat's also on 9th and 10th of August, Tambaram entertained guests from other colleges of the Area at the Office-bearers' Conference at which the National S.C.M. General Secretary, the Rev. Harry Daniel was also present.

The Annual Provincial Camp took place from 18th to 21st of October at St Columba's High School, Chingleput. Our Union sent about 30 delegates to the Camp. The theme

was 'The Life and Mission of the Church'. The Rev. G. C. Martin, the main speaker, delivered three lectures on: (1) Jesus Christ is Life; (2) Life in the Church; (3) Life of the Church for the world. The Bible Study and discussion of the Epistle to the Philippians was led by the Rev. John Sathyanathan. Other speakers were the Rev. H. O. Morton, of Egmore Wesley Church, formerly Study Secretary of the National S.C.M., and Miss R. Mukerji, Principal, Women's Christian College, Madras. We also heard a speech by the Rev. John Teibe of Youth for Christ on the 10th World Congress for Christian Youth to be held in Madras from 4th to 10th January 1959, and another by Dr Benjamin, Christian Medical College, Vellore, on the S.C.M. sponsored Medical Conference from December 24th to 30th, 1958 at Vellore to realise the role of the Christian medical worker in the Life and Mission of the Church. The Camp put forth its spirited call to the members be active workers in the Church, whatever the denomination, stressing that the Church must and should be not of the world, but in the world and for the world, conscious of the changes and developments in this age of revolution and reconstruction. Christians ought to move along with the times, at the same time without damage to the fundamental Faith and Fellowship of the Church Universal. Students should make thorough use of the opportunities provided by the Church in the worship and witness programmes.

Our Union volunteered to run a Refreshments Stall at the Thank-offering Festival of the local C.S.I. Church on 6th of September this year and contributed about Rs. 25 to the Church. We hope to do more and more in future, and our prayers are there for God's guidance and help in our march to the goal 'that they all may be one'.

PREMAN NILES,
General Secretary.

Rural Service League

This year we adopted a novel method of recruiting the members of the League. Unlike in previous years, we printed the enrolment form with an appeal to the students this year. This method proved to be fruitful because it made the students acquainted with the aims

of the League. We distributed the forms to all the students in the Halls and to the non-resident students. We also sent enrolment forms to Guindy this year, but not even a single woman student has come forward to join the League!

At present we are having 340 active members in our League including the non-resident students. The League is carrying out its work smoothly in five centres, namely Mangalapuram, Old Tambaram, Srinivasa Illaru, Kamaraja Nagar and Gandhi Nagar, and we are going to extend our services to two more villages this year. There are four squads in our League namely the Educational Squad, the Medical Squad, the Manual Labour Squad, and the Cottage Industries Squad. Each of these has a separate secretary.

We are running an elementary school at Old Tambaram which has on its rolls more than 360 children and nine teachers. Apart from this we are conducting evening classes in the villages under the auspices of the Education Squad. Our Education Squad Secretary P. Velayuthan sends daily four students to each of the five centres to teach the villagers.

Perhaps the work of our Medical Squad forms the most important aspect of our League. We are maintaining a dispensary in Old Tambaram where the villagers receive free treatment for minor ailments. We are also having First-Aid centres in three other villages. This year we purchased four First-Aid kits. Narayanaprasad, our Medical Squad Secretary, has efficiently organised his squad and sends active members to all the five centres daily. With the kind co-operation of St. John Ambulance Association our League conducts First-Aid classes for the benefit of college students.

The Manual Labour Squad is meant for teaching our students the dignity of labour. The members of this squad try to carry out any constructive piece of work with the co-operation of the villagers. So far, the members of this squad have laid one road at Kamaraja Nagar, and levelled up a damaged well at Mangalapuram. The credit for the efficient working of the squad goes to Bala-

ganesan, our Manual Labour Squad Secretary, and to the members who work with him.

The Cottage Industries Squad is a small unit with the modest aim of encouraging the villagers in and around Tambaram to carry on some profitable Cottage Industry such as basket-weaving, book-binding, kitchen-gardening, etc. This squad runs a Weaving-Centre inside our College compound with eight (hand) looms, and thus provides useful employment to a weaving master and eight others. It is now proposed to conduct a few weaving classes under the auspices of this squad. We are also distributing seeds to the villagers, and thus we help them to maintain kitchen-gardens. Joseph P. Mathews, our Cottage Industries Squad Secretary tries his best to put the aims of this Squad into practice.

On the whole our League impresses upon the students the importance of social service especially in rural areas, and helps the villagers to plan their village towards progress and prosperity.

V. L. SINMAYANANTHAN,
General Secretary.
R. S. L.

The Radio Club

President—Dr M. A. Thangaraj
Vice-President—Mr K. B. Rajangam
Secretaries—J. Pasupathy,
V. S. Gopalakrishnan

The increasing number of members shows our growing reputation. The club has grown rapidly in the past four years and is now being well-equipped. We have now our own workshop too.

We started our activities only towards the end of the first term. The club works regularly from 4-30 to 6-30 p.m. on week days. We intend to follow the conventional programme of building:

- I 1-valve regenerative receiver
- II 3-valve receiver
- III 5-valve superheterodyne receiver.

Since our financial position is good and we have a separate workshop we intend to expand the field of our activities. The Radio Club

in the course of time, we hope, will become a 'Radio and Electronics' club. We hope to construct a transmitter during the third term. We have no doubt that we will receive sufficient help from our President and Vice-President in that direction.

J. PASUPATHY,
Secretary.

Photographic Club

We started functioning a little late in the year. At the first meeting, the office-bearers were elected. The President, Dr M. A. Thangaraj, gave us a peep into the mysterious realm of darkroom technique. It was certainly his characteristic enthusiasm that attracted a great many members this year. Of course, as usual when the question of the annual subscription came up, some preferred to abstain.

This year we tried two different developer solutions D-72 and D-163. Besides we are using Sepia Toning, Intensifier and Reducer solutions. Toning was mostly a success and at times, a little bit tricky to the beginners.

The earlier enthusiasm has somewhat damped owing to the high prices of paper and films involved. We are trying to get them at a cheaper rate and hope that the Govt. of India may be a little more considerate and grant some more concessions to import; the Kodak company has been making arrangements with the Govt. of India to start a factory in India.

However, work has been going on normally and we have bought three useful books for the beginners. We hope to buy a folding camera soon.

S. SATKURUNATH,
Secretary.

Andhra Bhashabhiranjani Sanghamu

President—Sri P. R. P. Francis, M.A.

Vice-Presidents—Sri A. C. Kamakshi Rao, M.A.
Sri M. Abel, M.A.

Student-Chairman—V. Venkatasubba Rao, 5 Hons. (Economics).

Secretary—D. Narayana Reddy, IV B.A.

Joint Secretary—V. Jaya Victor, II B.Sc.

Entertainment Secretary—K. Venkata Rao, II. P.G.

Class Representatives :

B. J. Anandam, P.G.
A. Adinarayana Reddy, Honours.
B. Samuel, IV B.A.
D. Venkata Ratnam, II B.Sc.
M. Ramanathan Naidu, I B.A.
D. V. Vinodkumar, Pre-University.

The activities of the Sanghamu began with an informal meeting held on 7th July 1958. Sri P. R. P. Francis outlined the history and aims of the Sanghamu.

On 24th July 1958, the inaugural address was delivered by Sri D. S. Sastri, M.A., C.A.I. I.B., of the Central Bank of India, Madras, when Sri J. V. Somayajulu, ex-Chairman of Andhra Chamber of Commerce, presided. The Student-Chairman, Sri V. Venkatasubba Rao, welcomed the gathering, and the President of the Sanghamu, Sri P. R. P. Francis, introduced the distinguished guests to the audience. Earlier there was a pleasant tea-party in Selaiyur Hall. Messages and best wishes were received from Sri S. B. P. Pattabhi Rama Rao, Minister for Education, Andhra Pradesh, Dr U. Krishna Rao, Speaker of the Madras Legislative Assembly and some distinguished old members of the Sanghamu. The speaker of the day traced the history of the Telugu population in Madras in a humorous manner. Sri J. V. Somayajulu advised the students to make the best use of the time at their disposal. D. Narayana Reddy, Secretary, proposed the vote of thanks.

The next meeting was held on 14th August and the house debated the proposition 'Democracy is a failure in backward countries'. Many members of the Sanghamu took a lively part and most of them expressed their views in favour of the proposition. After the debate Sri M. Abel, who was in the chair, commented on the proceedings and advised the participants to be more dispassionate and restrained in their speeches.

The next meeting was held on 26th August 1958, with Sri P. R. P. Francis in the chair, while Sri Palagummi Padmaraju, M.Sc., a well-known story writer, spoke on 'story-writing as an art.' He explained how modern Telugu story writing is a synthesis of the techniques of the traditional Telugu story and the western

novel. D. Narayana Reddy, Secretary, proposed the vote of thanks.

We are at present preparing for the celebration of the Andhra Pradesh Anniversary day which falls on 1st November. We hope to celebrate the function fittingly.

D. NARAYANA REDDY,
Secretary.

Tamil Peravai

The following office-bearers were elected for the current academic year 1958-59:—

President—Sri P. Alalasundaram
Vice-President—Sri K. Vadivelayuthan
Student-Chairman—M. K. V. Nalliah.
Joint Secretaries—M. P. Gurusamy
R. Sinnathamby

Class Representatives—

David Jacob—P.U.C.
Gopalakrishnan—P.U.C.
Iruthayanathan—I B.Sc.
Ramanathan—I B.A.
Elangovan—II B.Sc.
Baskaran—II B.A.
Walter Devaram—IV B.A.
Selvarajan—B.A. Hons. and P. G. Classes
Poorna Chandran—B.Sc. Class.
Miss Rajanayaki Arumugam—Women Students' Representative.

The Secretaries of the three Manrams of the residential halls were also included in the Executive Committee of the Peravai:—

Rangaiyan—Bishop Heber Hall—Valluvar Manram

Raman—St. Thomas's Hall—Bharathi Manram

Kathirvel—Selaiyur Hall—Tamil Manram

The Tamil Peravai was inaugurated by Sri K. V. Jaganathan, the Editor of 'Kalaimagal' on 23rd July, 1958. The meeting was held in Anderson Hall with the Student-Chairman presiding. A warm welcome was extended to the distinguished speaker by M. P. Gurusamy. The Student Chairman referred to the services of the speaker to Tamil literature through his very good magazine. The speaker

made an appeal to the students to study their Tamil text books not from the point of view of examinations but from the literary point of view. The speaker dealt with the unique characteristics of Tamil literature and profusely illustrated his talk.

A debate was conducted on 7th August. Many students took part in it.

The following speakers were selected, to represent our College in inter-collegiate debates: Srinivasagan, P. Rajagopalan, M. P. Gurusamy, Murugesan, Selvarajan and Raman.

MA. PA. GURUSAMY,
R. SINNATHAMBY,
Joint Secretaries.

Hindi Premi Mandali

We started this year's activities by inviting Professor Chandrakant of the Presidency College to deliver our inaugural address. The speaker, a man of immense learning in both Hindi and Sanskrit, spoke to us on a topic which would interest all students of Hindi Literature, the poet Kabir. He dealt with the subject in three phases, Kabir as a religious figure, as a scholar and as a philosopher.

The membership of our association is more than 80 this year, and we are happy to note that there is an increase in the number of people who are studying Hindi for its own sake.

We are happy to welcome Mr S. Thirumalai, our new vice-president who brings with him a great deal of experience in debating.

U. RAVI RAO,
Secretary.

The Samskrita Samajam.

President—Prof. U. Venkatakrishna Rao, M.A.

Vice-President—Sri V. R. Ranganathan.

Secretary—M. Raghavayya.

Class Representatives—

A. Sudhama, P.U.C.
P. C. Hariharan, I Class.
V. Srinivasa Murthy, II Class.
Sampath Raghavan, IV Class.
P. Keshava Bhat, Other Classes.

Early in the first term, on July 11, we held an informal meeting of the Samskrita Samajam to elect office bearers for the current academic year.

The inaugural meeting of the association was held on July 29. Professor S. Tiruvengkatachary, M.A., M.Ed., of the Karaikudi Training College, delivered the inaugural address. He said that Sanskrit should not be considered a dead language. He also related his experiences in America and other countries. We were surprised to hear that in America, Sanskrit was taught in most of the universities. His speech was very stimulating.

Professor U. Venkatakrishna Rao, M.A., presided.

M. RAGHAVAYYA,
Secretary.

The Malayalee Samajam

President—Mr T. K. Thomas, M.A.

Chairman—P. Abraham Itty,

Secretary—David M. Abraham.

Treasurer—Mathew Iype.

The election of the committee members was held on June 30, 1958. The following were elected:

Chitharanjan Unni, P.G. and Honours.

P. P. Varkey, IV B.A.

R. V. Mohan Lal Roy, IV B.Sc.

Thomas Mathew, II B.A.

Aravind, I B.A.

V. Chandran, Pre-University.

Women's Representative: Annie Thomman.

Hall Representatives:

Selaiyur—Thomas P. Koshy.

St Thomas's—Jacob John.

Heber—Jacob P. Thomas.

Women's Hostel—Anna Thomas.

The activities of the Malayalee Samajam for the academic year were inaugurated by Dr S. K. Nair, Reader in Malayalam in the University of Madras. He spoke on the cosmopolitan character of the culture of Kerala. Mr K. Padmanabhan Nair, Secretary of the

Madras Kerala Samajam and the officer in charge of Malayalam programmes in All India Radio, and Mrs Santa P. Nair, well-known play-back singer of the Malayalam screen were also present on the occasion. Mrs Nair entertained the audience with her songs. Our president, Mr T. K. Thomas, presided.

The second meeting was held on September 13, 1958. Vayalar Rama Varma, the eminent poet and lyric composer, Paravoor Devaraj, music director and play-back singer in many Malayalam films, Dr K. M. George, former lecturer in Malayalam at Madras Christian College and at present the Assistant Secretary of the Sahithya Akademi and Sri S. P. Pillai, the famous comedian of the Malayalam screen were present. Sri E. K. Purushothaman presided.

The Onam celebrations were conducted on a grand scale. The chief guest was Sri T. N. R. Thirumulpad, District and Sessions Judge, Tribunal for Disciplinary Proceedings, Madras. There was a tea-party in the library gallery for the members and the invited guests. Mr Thirumulpad spoke on 'Onam' and gave a new interpretation to the legend of Onam. The entertainment included three short plays and a dance performance by the women students. 'Man-nankattayum Kariyilayum Thiruvananthapurathupoyi' and 'Rittayadayi' were staged by the students and the members of Staff respectively. The function, as a whole, was eminently successful.

DAVID M. ABRAHAM,
Secretary.

Natural History Society

The activities of the Natural History Society for the year 1958-1959 were inaugurated by Professor T. S. Sadasivan, Director of Research in Botany, University of Madras. He spoke of recent advances in Microbiology. His informative and well illustrated lecture revealed the tremendous work that has been done recently in the study the activities of the micro-organisms.

The Society also encourages the study of Natural Science through field-work and hence

excursions are arranged throughout the year to various places of interest. Since the Society is versatile in its interests, excursions are arranged also to places of cultural value. On the 15th of August a party of sixty-five students were taken to Mahabalipuram. On the way we alighted at Thirukazhukundram. At Mahabalipuram, besides enjoying the art in sculpture, we also enjoyed collecting specimens on the rocky shore near the shore temple. Even though it rained heavily the M.Sc. students did not give up collecting specimens.

On 20th August the Society affectionately welcomed the new graduates who were former members of the Natural History Society. A luncheon party was given in their honour and this was followed by a short musical programme during which each one of the graduates was welcomed by a song specially composed to bring out his or her characteristic features. A good number of our graduates responded to the invitation. It was a pleasant occasion of reunion for the graduates with the members of the Staff and with the members of the Society. We wish them all success in their future enterprises.

The activities for the second term began with a debate in which six students participated. They discussed vehemently the subject, 'Heredity is stronger than environment'. The students furnished valuable discussion supported with experimental data on the much disputed problem of the inheritance of acquired characters. The discussion besides dealing with Lamarckism, Weissmanism and Soviet Genetics, also touched on the inheritance of mental traits in man, and brought to light some of the recent trends in the inheritance of diseases like cancer, and the effect of atomic radiation on chromosomes and genes—the 'vehicles' of heredity. The following students participated in the debate:—

S. K. Krishnaswami—II P.G.

H. Daniel Wesley—II P.G.

Theodore Sreenivasagam—4 Hons

Rajalakshmi Periathamby—IV B.Sc.

Narayana Iyer—IV B.Sc.

S. H. L. Aliyar—IV B.Sc.

The debate was followed by two films—

'Atom in Biological Science'.

'Atom in the service of humanity'.

Our special thanks are due to the U.S.I.S. for allowing us the use of their films of literary value.

S. H. L. ALIYAR,
A. INDRASENAN,
Joint Secretaries.

History and Politics Association

Office Bearers:—

President—Prof. Chandran Devanesen, M.A.

Vice-President—Mr M. Sargurudoss,
M.A., M.Ed.

Student-Chairman—R. Paramanathan,
5 Hons.

Secretary—B. E. M. Gomes, 4 Hons.

The Inaugural Meeting and Tea Party was held on the 25th July 1958. Dr A. Krishnaswami delivered a thought-provoking address on the U.N.O. As a former member of one of its sub-committees he was able to enlighten the large audience on the working and the great future of that body.

On the 12th August, a Symposium on *India Since Independence* was conducted in the St Thomas's Hall theatre. While speakers Narayanan R. Reddy, S. Chandrasekar and Mr M. Abel pointed out the great progress that India had made in the cultural, scientific and political fields. Mr S. Krishnaswamy convinced everybody that with the present high percentage of illiteracy among the electorate, Parliamentary Democracy in India was rather like a square peg in a round hole. Mr P. E. Daniel evaluating the 'ambitious' Five Year Plans, pointed out that they might prove fatal by eliminating the people rather than the poverty of India. Prof. J. M. Healey said that he noticed a great surging towards material well-being in India, together with a spiritual retrogression in the people. He hoped that India would move more in the direction of God. The symposium was a thumping success and the huge audience enjoyed themselves thoroughly.

On Wednesday, October 8 the Association held a tea party and meeting at St Thomas's Hall to welcome Prof and Mrs Devanesen. Prof Devanesen's talk on the educational

system at the Harvard University interested everybody present.

We hope to go on an excursion to Gingee and a few other places of historical interest.

Finally, we express our grateful thanks to Mr Sargurudoss who headed this Association in the absence of Prof. Devanesen. As President of the Association for two years he has given us of his best and our cordial thanks are due to him.

B. E. M. GOMES,
Secretary.

Economics Association

The activities of the association were inaugurated by Prof. K. Vasudevan of Vivekananda College, Madras. His address was on 'This Age of Inflation'. He argued that the presence of 'pressure groups' contributed to the inflationary trends in the economy.

The Planning Forum is also to have discussion on papers prepared by students under the guidance of Mr Healey and Mr G. Paul David on Planning, Population Growth and Public Enterprise in India.

The salient feature of the Association's work this year is the introduction of a Weekly Seminar in which subjects of economic and social significance are discussed.

The Economics Association is taking an active part in the Eighth Students' Economic Convention beginning in the third week of November.

In the second and third terms, there will be a number of meetings, which will keep the association active.

K. SRIDHARAN,
Secretary.

Psychology Association

The first meeting of the association was held on 31st July to elect the office-bearers for the academic year. All the names were unanimously accepted:

Chairman—S. Akbar.

Secretary—V. Padaki.

Treasurer—Miss K. V. Gita.

Class Representatives:

5 Hons. and II P.G.—K. R. Reddy

4 Hons.—P. Periaswamy.

Dr C. T. Krishnamachari continues to be our patron and Mr P. V. Ramamurti become the president. Later, two students from the Pre-Varsity class joined the Executive Committee as class representatives—S. Hari Raja and Chen Benchu.

This year we have a bigger membership roll because of the enthusiastic Pre-Varsity students and the ancillary students from the B.A. Philosophy group.

The association met for the inaugural at Heber on 28th August. The number of outsiders who attended Dr S. T. Narasimhan's lecture on *Human abilities and the nervous system* shows the popularity of the association as well as the success of the inaugural.

Before the year is through we propose to do quite a few interesting things—symposiums, meetings, film shows and visits to Dr Narasimhan's clinic and the mental hospital. Besides, we are already the envy of all the associations in the college for our forthcoming excursion to Ajanta and Ellora.

V. PADAKI,
Secretary.

Mathematics Association

The activities of the association began with the unanimous election of Secretary and Class Representatives in the middle of July.

The inaugural address was delivered by Mr S. Narayanan, M.A., Additional Professor, Vivekananda College, Madras, on 22nd August. He spoke on 'Space Travel' in such a way that even students not taking Mathematics were able to understand him clearly and appreciate the subject.

He mentioned the work of Wernher von Braun, whom he described as the world's leading expert on rocket construction. He was interested in space travel from his childhood but had an aversion to Mathematics. He finally learnt the subject by becoming a teacher of it. Mr Narayanan remarked that if one wished to learn a subject he should become a teacher. I feel it is a very pleasant compliment to people who embrace the teaching profession.

He made clear some of the hazards one would have to face in space travel. He

pointed out that zeal for further knowledge may make people face all these hazards.

He referred to the prediction made long ago by Einstein that a perfect clock will run fast in a less intense gravitational field, and said that it might be possible to verify this by suitable instruments in an unmanned satellite, and that many other scientific observations will be possible. Dr Kibble presided, and he re-emphasized what Mr Narayanan said about the unknown hazards of space travel. He said that adequate protection of the human body against cosmic radiation would involve such massive armour-plating that it may well be a very long time before it is possible to launch so heavy a satellite.

The meeting closed with the vote of thanks proposed by the secretary.

M. P. PURUSHOTHAM,
Secretary.

English Association

Owing to the recent abolition of the Honours Course in the University of Madras, there is a change in the name of our association, from 'English Honours Association' to 'English Association'.

Strictly following the lines of tradition, the freshers of our Association got themselves introduced early this academic year and the ceremony of introduction was followed by the election of the office-bearers. The office-bearers are:—

Patron: The Rev. G. C. Martin

Chairman: T. Jayaraman

General Secretary: N. Narayan Swamy

Joint Secretary: Miss Colleen D'Quental

In the first term we went on a picnic to Sadras and the party was led by our patron the Rev. G. C. Martin. It was a grand success.

We had Mr S. H. Best of the British Council amidst us to talk on 'My Favourite Poets among the Moderns' in the beginning of the Second Term. The speaker selected G. M. Hopkins, W. Owen, Y. B. Yeats, D. H. Lawrence, and Deloney Thomas, some of his favourites among the Modern Poets,

and gave a precise account of the contributions of each of them. The speaker read effectively some of their poems. The Rev. G. C. Martin presided.

N. NARAYAN SWAMY,
General Secretary.

Physics Association

President—Dr M. A. Thangaraj.

Secretaries—K. Visweswaran.

R. G. Subramaniam.

The Inaugural Address of the Association was delivered by Mr D. V. Rao, Meteorologist, on 5th August, when Dr M. A. Thangaraj presided. The subject was 'Sky Illusions' and the speaker elaborately dealt with the condensation trails and atmospheric illusions like the enlarged size of the sun and moon near the horizon. During the course of his talk an interesting reference was made to Flying Saucers. The speaker mentioned that the Flying Saucer itself was an atmospheric illusion caused by the condensation of exhaust fuels from fast jet aircrafts. The speaker himself was equivocal about the Flying Saucer mystery but he was confident that a day might come when a plausible explanation could be forthcoming.

After the meeting, two films were shown—'The Moon' and 'Cloud and Weather Forecasting'. The films were appreciated by those present.

The second term was of intense activity for the Association. We conducted two seminars, one on 'Quantum Theory of Matter' and the other on 'Cosmic Rays'. As many as nine lectures were given by specialists working in different fields. All the lectures were well attended and we had record gatherings on all days. Apart from lectures, many good films were shown. The Secretary wishes to thank the British Council and U.S.I.S. for the help they rendered in showing such good films. We projected a film showing the launching of the American Satellite 'Explorer'. This film was liked by everyone present. In due course we intend having a separate filmshow covering the American I.G.Y. Programme.

In the main outline the programme was as follows:

I. 'Quantum Theory of Matter' series

Thursday, October 9: Dr M. A. Thangaraj, president. Dr G. N. Ramachandran, Prof. of Physics, Madras University, gave the first talk on 'Quantum and Wave Picture'. Participants included Dr Gokhale, Dr A. Narasinga Rao, Dr M. G. K. Menon Dr C. T. Krishnamachari and research students from Madras University and students from city colleges.

Film shown: 'Exploring space.'

Friday, October 10: Dr W. F. Kibble, presided. Dr A. Narasinga Rao gave the second lecture on 'Postulates of Quantum Theory'. Participants included Dr G. N. Ramachandran, Dr C. T. K. Chari, Dr Thangaraj, Dr Menon and Dr Gokhale.

Film shown: 'In which we live.'

Wednesday, October 15: Dr M. G. K. Menon, Prof. of Experimental Physics, Tata Institute gave the third talk on 'Neutral K-Particle Mixture—An example of particle-wave concept'. Dr M. A. Thangaraj presided. Dr C. T. K. Chari, Dr Narasinga Rao Dr Gokhale and others participated.

Thursday, October 16: Dr L. M. Yeddenapalli, Professor of Chemistry, Loyola College, gave the fourth talk on 'Quantum Mechanics and Chemical Bond'. Dr S. V. Anantakrishnan presided. Dr C. T. K. Chari and Dr Thangaraj participated.

Thursday, October 23: Dr C. T. Krishnamachari, Professor of Philosophy of our College gave the fifth talk on 'Some Philosophical Questions about Quantum Theory'. Dr A. Narasinga Rao presided. participants were: Dr G. N. Ramachandran, Dr Kibble,

Dr S. V. Anantakrishnan, Dr M. A. Thangaraj, Dr B. Ramakrishna Rao and others.

Film shown: American Satellite 'Explorer' in space.

Tuesday, October 28th: Dr M. A. Thangaraj gave the concluding talk of the series. The subject of the day was 'Uncertainty Principle'. Dr C. T. Krishnamachari presided. A film 'Planning for Discovery' was shown after the lecture.

The 'Cosmic Ray' Seminar was also conducted concurrently with the other series. Dr M. G. K. Menon gave the first talk on 11th October and he spoke on 'Recent developments in the Physics of elementary particles'. Dr Thangaraj presided.

Films shown: In which we live, Atoms for Peace—Advances made.

On Tuesday the 14th October, Dr G. S. Gokhale gave the second talk on 'Balloons for high altitude research'. His lecture was followed by Mr V. K. Balasubramaniam's talk on 'Cerenkov Counters'. A film showing the work done on Cosmic Ray research by the Tata Institute was shown. The President of the day was Dr A. Narasinga Rao.

In concluding this report, I must express my sincere thanks to our president Dr M. A. Thangaraj for the guidance and help rendered, to enable me to conduct the Seminars in a successful manner. We end with an ardent hope that

'As we work, we can transmit life into our work
And we shall ripple with life through the day'

K. VISWESWARAN,
Secretary.

Athletics

Cricket

The selection of the College team was a question of 'survival of the fittest' and a series of net practices with a couple of sides matches helped us to construct a team that is unquestionably one of the best in recent years. That the team is a powerfully balanced side is amply demonstrated by the fact that each department is served by players of merit.

Who's Who

K. Ahmedullah—A stylish opening bat who plays strokes of charm. Consistency is the keynote of his batting.

S. Ray—A brilliant wicket-keeper-cum-batsman. He has elegant strokes all round the wicket.

W. David—A medium fast paceman who swings the ball both ways. He can hit the ball hard.

P. Subramanian—Vice-Captain of the team. A remarkable all-rounder with fluent strokes; specialist in legbreaks and googlies.

Lall Singh Gill—A sound attacking batsman with powerful strokes on the off-side. He is a smart field.

N. V. Narasimhan—A medium fast bowler who has implicit faith in the principle: 'Attack the stumps always'.

K. Rajagopal—Speed merchant who opens the attack. His inswinger is his most potent weapon. An aggressive batsman who can rise to the occasion.

A. K. Dutt—A good all-rounder who bowls medium fast off-cutters. He is a safe field.

K. C. Mathew—A left handed all-rounder. He is a graceful batsman and a brilliant field.

K. N. Y. Maurice—A medium fast speedster who moves the ball into the batsman. He is very alert on the field.

K. Balachandran—A good all-rounder. He unleashes powerful shots in front of the wicket. He bowls off-breaks with an occasional whizzer.

L. Chiman—He is a delightful batsman with a wide repertoire of strokes. A useful leg spinner and sure field.

S. R. Subramanian—An all-rounder of high merit. His stroke play is commendable and his off spinners are penetrative.

Y. G. Narendranath—Yet another fine all-rounder. He is an attractive batsman and bowls medium fast.

Henry John—opening batsman.

We inaugurated the Season with a decisive win over P. V. Krishnamoorthy's XI and with this initial shot in the arm we zealously anticipated our Inter-collegiate engagements. The league opened on us and in mercurial fashion we started with three runaway victories. Our match with Jain was abandoned as the field was flooded soon after the start and we suffered defeat at the hands of Stanley Medicals. The cardinal match for us was against Loyola. We had the upper hand but then ensued a woeful tale of missed chances and Loyola emerged victors.

Our team, after a period of boom, slumped. Our determination and the encouraging presence of our physical director Mr C. A. Abraham should help us stage a splendid recovery next term.

HENRY JOHN,
Captain.

Results:

(1) P. V. Krishnamoorthy's XI. 94 (P. Subramaniam 6 for 30 and S. R. S. Mani 2 for 21)

Christian 103 for 3 (K. Ahmedullah 24, S. Ray 23, Henry John 40 not out)

(2) Christian 211 for 3 and Declared (Ahmedullah 38, S. Ray 27, Lall Singh 24 not out, L. Chiman 54 not out, Henry John 55)

Theagaraya 71 (K. Rajagopal 4 for 22, P. Subramaniam 3 for 14, and W. David 2 for 8)

- (3) Christian 155 for 9 and Declared (S. Ray 48, K. C. Mathew 20, Narendranath 25 and Henry John 20)
Integrated Medicine 30 (K. Rajagopal 7 for 17 and W. David 3 for 10)
- (4) Christian 237 for 4 and Decl. (K. Ahmedullah 34, Lall Singh 36 not out, P. Subramaniam 57 not out, Henry 74)
New College 28.
- (5) Against Jain College.
Christian 99 for 4 (P. Subramaniam 41 not out). Rain intervened.
- (6) Christian 89 (Henry John 20). Stanley Medical 90 for 4.
- (7) Christian 141 (K. Ahmedullah 53 and Henry John 38)
Loyola 142 for 7 (P. Subramaniam 5 for 42 and K. Rajagopal 2 for 31)

Basketball

We commenced the current season with a fifteen point defeat at the hands of the I.A.F. team. Many of our star players of previous years having left, the burden of keeping the high standard of the game fell upon a new squad of basket-ballers. Though, we lost the first practice match, we learnt our lesson from it.

We are proud to present the League results :

Christian beat Vivekananda 55 : 26
Integrated Medicine 33 : 10
Veterinary 67 : 44
Arts 77 : 18

M. Karuppiyah, P. V. Arulpragasam and new comer George are our main scorers so far. Thomas Mathew has been a tower of strength in the defence.

Apart from the League matches, we played two exhibition matches. A basketball team from the Union Christian College, Alwaye, visited us on the 29th of Aug. We beat them with 42 points against a well earned 28.

The Ceylon Y.M.C.A. basket-ball team, played the other exhibition match with us. Playing top-class basket-ball, they beat us by a small margin of 12 points. R. Sundaralingam, (Centre forward of our 1956-57 winning combination), assisted the Ceylon Y.M.C.A. with a brilliant performance.

Congratulations, Ceylon Y.M.C.A. ! The deciding match against Loyola originally fixed for 7th October was postponed, due to inclement weather.

Who's Who of the team :

- (1) P. V. Arulpragasam — A promising player who is bound to reach great heights.
- (2) M. Karuppiyah — An experienced player who strikes brilliant form on occasions.
- (3) Thomas Mathew — A dependable defence-player.
- (4) George Jacob — A player in the making ; needs experience.
- (5) Ummanath Shetty — A new-comer.
- (6) A. Kurien — A very useful player who can play in any position.
- (7) Sudarsanam — Very much interested in the game. A good referee too.
- (8) Essa Abbas — An excellent exhibition player.
- (9) Bala Shunmugasundaram — ' Baby ' of the team.
- (10) Paul Joseph — Captain 1956-57.
Captain 1958-59.

We look forward to the more important matches with confidence. Though we lack experience, we are determined to do our best.

PAUL JOSEPH,
Captain.

Football

The usual practices started early this term. We have a lot of new players this year but though much was expected from them, they seemed to give us little. We practised very hard with the satisfactory result that in the opening friendly match of the season we got a 4-1 defeat from the I.A.F. team, our only friend and neighbour, who used to beat us of course every year with big, big margins. It was not a bad beginning, and in the Inter-collegiate league tournament, we beat C.N.T. by 5 goals to Nil. Then on the 5th of August we lost to Stanley 2-0. This was rather unexpected, but we again proved to be the good old Christian when we beat Veterinary on our grounds by 5 goals to 1. There were still chances

for us in the League, when we beat Govt. Arts on their grounds 2-1. We got a walk-over from New College. If we could beat Law College (which seems to be quite a good team this year) we certainly would come to the finals. We had some friendly matches again—twice with Govt. Transport, Chrompet. We proved ourselves a good team as we beat them 5-Nil in the first match and 2-1 in the return match.

Then we met Law at the end of the term on the 1st of Sept. on their grounds. But fate was against us. In the 20th minute, our ace scorer and master player Panchalingam was carried off the field, being hurt in the knee, and we realised how much an individual is worth in the field. We lost to Law 5-1. Being beaten by Law, we are out of the League—and our only hope is in the Knock-out tournament that is coming later in the 2nd term. We did not defend our title in the Kailasam Pillai Memorial tournament at Annamalainagar this year. We sent up five players for the University trials,—Panchalingam, Narayan Reddy, Kuruvilla John, Isaac Joshua and Lokendra Singh and the last four were selected to represent the University in the Inter-university tournament. (Panchalingam, who had been playing for the University for the last three years could not play this year as his knee trouble came on again during the selections and he missed the chance of University Captaincy too). Narayan Reddy and K. John played for the University last year also. We are now hoping for better things in the second term.

A. LOKENDRA SINGH,
Captain.

Volleyball

The season began with some practice matches to select the College team. It was an easy job as there were only a few new aspirants. The team was formed and we had our first match against Ganapathipuram Recreation Club, Tambaram, where we defeated them easily. Then followed a series of practice matches against the I.A.F., Tambaram and though we were defeated in most of them, the matches gave us very good training which eventually strengthened us, and we are eager to win laurels in Inter-

collegiate encounters. Our thanks are due to the I.A.F. team.

The Inter-collegiate League Tournament is well under way now and our position is strong. We have won all the matches played so far—numbering five. We first met New College. They gave us a good fight but we were victorious in straight games. The matches against Integrated Medicine and Govt. Arts were easy encounters and to use an undergraduate slang, they 'got licked' easily in straight games. Theagaraya gave us a walk-over and the fifth match against Veterinary was the toughest played so far. This is the only match where we were taken to three games. Victory was again ours, but the fighting spirit of Veterinary is well worth commending. They were a formidable opposition.

We have to play three more matches in the League, against Loyola, Madras Medical and the M.I.T. By next week all these engagements will be over and our position in the League will be decided. Let us hope that our boys will put up a good show and repeat last year's success.

The Inter-collegiate knock-out tournament begins towards the end of this month.

We are thankful to our Physical Director for the excellent coaching he has given us. He always gives us valuable tips when he visits us on the courts. Our President, Mr Edward Augustus, takes a keen interest in the game and he meets every player personally and encourages him. He never fails to be present at a practice match. Our thanks are due to him. We also extend our gratitude to the umpires from Corley High School and the I.A.F., Tambaram.

The team :

1. G. Manuelraj
2. G. M. Vyasa Rao
3. T. Merwin
4. T. Dorairaj
5. Guru Henry
6. K. P. M. Sivasubramaniam
7. Sritharan.

D. DEENADAYALAN,
Captain.

Hockey

We began our quest for Inter-collegiate honours by trouncing C.N.T. 14 goals to nil. Surely this must be some sort of a record. Everyone played well and nearly everyone, except the goal-keeper, scored a goal! Well, this was an excellent start and we looked forward to our remaining matches with confidence.

However, we were aroused from our blissful complacency, when a Stanley Medical side almost forced us to share points and we just scraped through with a 3-2 win. In the next match we beat Veterinary College rather easily by 4-2. And then came our first and only defeat in the league, we were beaten by Arts, 3-0.

Our chances of reaching the Inter-Zone final being considerably reduced, a disap-

pointed team took the field against New College. The match was marred by rough play, not to speak of the awful ground conditions. Under the circumstances, how we clung to that one goal lead will always remain a mystery.

With this match ended our engagements for the First Term. It was a fairly successful beginning. I must thank the members of our team for their help and co-operation.

It was unfortunate that the Rev. G. Paul David could not spare more time for us this term, but we know that his best wishes were always with us. Mr Christy David and Mr Clifford Gozmao filled the breach and gave us some valuable tips regarding our play. We thank them all.

SUMIT RAY,
Captain.

College Magazines Received

- Queen Mary's College Magazine*, Vol. xxxviii, March 1958.
The Sunflower, Women's Christian College, 1955-56, No. 56.
Loyola College Magazine, March 1957.
Madras Engineering College Magazine, Guindy, Vol. xxiv, Parts 1 and 2, July 1955;
 Vol. xxv, July 1956.
St. Xavier's College Magazine, Palayamkottai, March 1957; March 1958.
Madras Medical College Magazine, University Centenary Number, January 1957.
St. Joseph's College Magazine, Trichinopoly, March 1957; 1958.
Pachaiyappa's College Magazine, Madras, Vol. xxxviii No. 1, December 1957;
 No. 2, March 1958.
Dr. Alagappa Chettiar College Magazine, Karaikudi, March 1958.
Social Service, Journal of the Law College Social Service League, Madras, Vol. 5, Feb. 1958.
Virudhunagar Hindu Nadars' Senthikumara Nadar College Magazine, March 1958.
Sri Venkateswara College Magazine, Tirupati, Vol. viii, March 1957.
American College Magazine, Madura, Vol. xxxvii, March 1958.
Madras Veterinary College Annual, Vol. xvi, March 1958.
Altech, Journal of Alagappa Chettiar College of Technology, Guindy, Vol. vii, 1957-58.
Findlay High School Magazine, Mannargudi, Vol. xxxiv, 1956-57.
Providence College Magazine, Kozhikode, Vol. 2, Sept. 1955.
Guruvayurappan College Miscellany, Kozhikode, Madras University Centenary Number,
 Feb. 1957; March 1958.
The Excelsior, St. Berchman's College Annual, Changanacherry, 1956-57, 57-58.
Sacred Heart College Annual, Thevara, Vol. xiii, 1958.
Government Victoria College Magazine, Palghat, Vol. xxiv, March 1958.
Mar Ivanios College Annual, Bethany Hill, Trivandrum, Vol. viii, 1957-58.
Assumption College Annual, Changanacherry, 1957-58.
St. Aloysius College Annual, Mangalore, No. 24, March 1958.
Sarada Vilas College Magazine, Mysore, 1958.
Gudivada College Magazine, Vol. 8, No. 1, Jan. 58.
Maharaja's College Magazine, Ernakulam, Vol. 43, No. 2, March 1958.
Serampore College Magazine, Vol. xiv, No. 2, Feb. 56.
Scottish Church College Magazine, Calcutta, Vol. xlvii, No. 1, Dec. 1955.
 Vol. xlix, No. 1, Dec. 1957.
Murray College Magazine, Sialkot, Vol. xlv, No. 1, March 1958.
The Stephanian, St. Stephen's College, Delhi, Vol. 67, No. 3, 1957-58.
Hislop College Annual, Nagpur, 1957-58.
Government Arts College Magazine, Anantapur, Jan. 1957.
Poly-Mag, Annual Magazine of the Central Polytechnic, Madras, 1958.
Sir Theagaraya College Bulletin, Madras, Vol. viii, Nos. 40-41 July-September,
 Vol. vii, Nos. 36-37, July-December.

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Loyola College, Madras, March 1958.
St. Joseph's College Magazine, Devagiri, Vol. ii, 1957-58.
Colombo Hindu College Magazine, December 1957.
The St. Albert's College Annual, Ernakulam, March 1958.
The Besant Theosophical College Magazine, Madanpalle, 1958.
Thiagarajar College Magazine, Madurai, March 1958.
The Madura College Magazine, Vol. xxvi, March 1958.
Findlay High School Magazine, Mannargudi, Vol. xxxv, 1957-58.
The Salem Municipal College Annual, 1957-58.
The Rajah Serfoji College Magazine, Tanjore, Vol. iii, March 1958.
The Mahatma Gandhi Memorial College Magazine, Udipi, Vol. viii, 1958.
Hajee Karutha Rowther Howdia College, Uthamapalayam, Annual, March, 1958.
The Andhra Medical College Magazine, Visakhapatnam, Vol. xxx No. 1, February 1958.
The Mrs A. V. N. College Magazine, Visakhapatnam, Vol. xxvi, March 1958.
Government Training College for Women, Coimbatore, Magazine, Vol. i, 1957-58.
Stella Maris College Magazine, Madras, 1958.
Madras Christian College School Magazine, Madras, 1957-58.

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GRAMS : ATHLETICS

Preachers at College Services

FIRST TERM

1958			
June	29	..	The Rev. Dr J. R. Macphail
July	6	..	The Rev. G. C. Martin
July	13	..	Mr R. D. Paul
July	20	..	Mr Jeyaraj Daniel, Christian Literature Society, Madras.
July	27	..	The Rev. Sundar Clarke, All Saints' Church, Vellore.
August	3	..	Dr M. A. Thangaraj
August	10	..	The Rev. Harry Daniel, General Secretary, Student Christian Move- ment.
August	17	..	The Rev. Paul David
August	24	..	The Rev. Dr Thomas Sittther, Associate Chaplain, St. George's Cathedral, Madras.
September	7	..	The Rev. Dr S. Estborn, Gurukul Lutheran Theological College, Madras.

SECOND TERM

October	5	..	The Rev. Dr J. R. Macphail
October	12	..	Mr M. M. Thomas, Associate Director, Institute for the Study of Religions, Bangalore.
October	17	..	The Rev. V. M. Thomas
October	26	..	The Rev. Edwin H. Robertson, Study Secretary, United Bible Society.
November	2	..	The Rt. Rev. David Chellappa, Bishop in Madras.
November	9	..	The Rev. Christy Arangadan, Bible Society, Bangalore.
November	16	..	The Rev. Harry Morton, Egmore Wesley Church, Madras.
November	23	..	The Rev. G. C. Martin
November	30	..	The Rev. R. F. Taylor, Church of South India, Madurantakam
December	7	..	The Rev. H. R. Weber, Executive Secretary, Department of the Laity, World Council of Churches.

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