

CURRENT SCIENCE

Vol. IX]

FEBRUARY 1940

[No. 2

	PAGE		PAGE
<i>A Great Educational Institution</i>	55	<i>Centenaries.—</i>	
<i>'Ascu' Wood Preservative</i>	59	<i>Whitworth, William Allen (1840–1905)</i>	88
<i>Colloid Aspects of Milk Technology.</i>		<i>Dunlop, John Boyd (1840–1921)</i>	88
By W. L. DAVIES	61	<i>Maxim, Hiram Stevens (1840–1916)</i>	88
<i>Letters to the Editor</i>	64	<i>Holland, John Philip (1840–1914)</i>	89
<i>Reviews</i>	82	<i>Astronomical Notes</i>	89
<i>General Circulation of the Atmosphere over</i>		<i>Magnetic Notes</i>	90
<i>India and Its Neighbourhood. A. K. Roy</i>	87	<i>Cosmic Rays. P. SRINIVASA ROW</i>	92
		<i>Research on Medicinal and Poisonous</i>	
		<i>Plants</i>	94
		<i>Science Notes and News</i>	95
		<i>Academies and Societies</i>	102

A GREAT EDUCATIONAL INSTITUTION

DURING the first fortnight of this month the Madras Presidency College celebrated its Centenary with great social pomp and academic pageantry. The old students, who had assembled on this historic occasion to testify their affection and loyalty to their College, were legitimately in a holiday mood, and the present students, temporarily relieved of their anxious thoughts about books, studies and examinations, must have naturally made the most ardent contributions to the gaiety of the varied festivities, which, judged by the press reports, were ingeniously conceived and delightfully enjoyed.

This great Institution, during the long period of its existence, has been a fertile cradle in producing distinguished young men, who in later life have achieved remarkable

success in the different spheres of public activities in which they were engaged. On this memorable occasion which, in certain respects, marks the turning-point in the career of the College, it must have been a matter of pride and pleasure to the staff and students to recall to their memory the names of those eminent men who are no longer with us, and who have left indelible impressions of their genius on whatever work it was their lot to perform. We need offer no apology if we respectfully recollect the names of Raja Sir T. Madhava Rao, C. Rangacharlu, R. Raghunatha Rao, Sir A. Seshayya Sastri, Sir K. Seshadri Aiyar, Dewan Bahadur S. Srinivasaraghava Aiyangar, Sir P. Rajagopalachariar, Sir T. Muthuswami Aiyar, Sir V. Bhashyam

Aiyangar, Sir C. Sankaran Nair, V. Krishna-swami Aiyar, V. Satagopacharlu, Sir C. V. Kumaraswami Sastriar, P. Ranganatha Mudaliar and S. Kasturiranga Aiyangar, whose outstanding achievements as statesmen, jurists, educationists and journalists form the noblest and the most enduring record of public service in this country. It would be almost impossible to compose a vivid picture of the personality and the human qualities of any of these eminent men from their works alone, however deeply they may bear the unmistakable marks of the artificer's intellect and character; and those who have seen their features and have heard their voice are few already, and become fewer yearly. It is, we believe, reasonable to assume that the Presidency College, which justly takes credit for having produced these great men, should not permit their memorials to become legendary, which, if carefully preserved in its Centenary Commemorative Volume, would constitute a perennial source of inspiration to the rising generation.

Though the task is certainly unenviable, yet we cannot resist the temptation of making a selection of some of the old graduates of the College, who are happily among us, and who deservedly are held in great public esteem. The names and accomplishments of C. Vijayaraghavachariar, Sir P. S. Sivaswamy Aiyar, Sir C. P. Ramaswami Aiyar, Sir V. T. Krishnamachariar, Sir T. Vijayaraghavachariar, Dewan Bahadur N. Gopalaswami Aiyangar, Sir C. Venkataraman, Sir K. Ramunni Menon, undoubtedly form the most stimulating and glittering chapters of our public annals. Both as the oldest politician and as a fearless and selfless advocate of his country's interests and aspirations,

C. Vijayaraghavachariar is universally honoured. His services will be gratefully remembered, and, in these days of doubt and difficulty, his courage and patriotism will be an example to the succession of students who may adopt politics as their profession. By temperament and training, Sir P. S. Sivaswamy Aiyar is a scholar, erudite in law and letters, whose brilliance in culture is only equalled by his piety and philanthropic zeal, and whose eminent status in public life is as much based on his solid achievements in the fields of education, legislature and administration as on the supreme worth and value of his personal character. As a genius marked off from his gifted fellowmen, Sir Venkataraman is the Indian Eclipse in the realm of Science, whose amazingly brilliant contributions have earned for him the greatest international honours open to scientists. His fame is undoubtedly a national asset and will endure as long as the Physical Sciences are treasured by mankind. His character is not easily or concisely expressed in the form of a simple mathematical formula, for it is multilateral, whose principal facade is a consuming passion to do science. For sheer versatility of intellect and forceful personality, Sir C. P. Ramaswami Aiyar is practically unrivalled. His mind is so profoundly comprehensive that he could with equal authority discourse on the attributes of the Deity, the French Dramatists, Biochemistry and the American Constitution. To talk to him is liberal education. Sir V. T. Krishnamachariar, Sir T. Vijayaraghavachariar and Dewan Bahadur N. Gopalaswami Aiyangar are distinguished administrators, who have attained fame and greatness by their singular devotion to duty and by the

eminent qualities of their character. They are perfect models for the younger generation to emulate and mould their ideals upon. Sir K. Ramunni Menon's distinction rests upon his accomplishments as an educationist and administrator, and his meritorious services to his College and to the University will be cherished with feelings of love and gratitude. It would be difficult at the present moment to form a just estimate of the significance of his contributions to the development of higher University Education in South India.

As a group, the students of the Presidency College have been men of all-round ability, vigorous, alert and keenly interested in many things outside their professions, with an immense record of honourable work to their credit.

The Presidency College at one time enjoyed the reputation of being an aristocratic institution, receiving within its portals princes and patricians, which used to provoke the retort that it fell to the lot of other colleges to produce princes and patricians among their scholars. Whether it really possessed this dubious reputation or not, the staff relied, almost to the point of religious fervour, on the theory that impersonal teaching of prescribed text-books formed the backbone of sound Indianism, with the result that the students imbibed all their lessons and even the superiority complex of their professors. However, within the last three decades, a great change has overtaken the College which, having shed its aristocratic clothes, has assumed the humbler garments of democracy and even the graceful short-skirts of feminism. This alteration in the spirit and the complexion of the College has followed in the wake of the progressive Indianisation

of its staff,—a body of eminent scholars and scientists, who worthily uphold the high formal academic standards for which it was always distinguished. It seems to us that the traditions of any educational institution are built up by the co-operative effort of the members of the staff and the students, and this body of traditions is enriched by the achievements of the latter when they enter life. From the standpoint of output of scientific investigations, none of the South Indian Colleges were distinguished till 1900 except, perhaps, in one department of study in the Presidency College, where the researches of Sir Alfred Bourne led to his election into the Royal Society. It is a sad reflection on the scientific teaching of our colleges, that after decades of toil and travail, we could produce a single Sir Venkataraman. The most baneful influence that pervaded the academic atmosphere of the higher educational institutions of South India in the last century was the competitive spirit, which manifested in the form of a rivalry for annexing prizes at the public examinations. If the energy of students had not been expended in memorising text-books and in leaping over the murderously high hurdles academically named public examinations, but had been conserved and directed towards developing independent thinking, promoting the spirit of independent enquiry and fostering small pieces of independent work in the laboratories, the Madras colleges should have produced more scientists, more scholars, more statesmen and more jurists, whose collective accomplishments would be the true and lasting foundation of their traditions. The tradition of an institution as an asylum of higher teaching of text-books is one thing; the tradition of an institution as

a dynamic centre for extending and conquering the untrodden fields of knowledge is a totally different thing. It is gratifying that the Presidency College has entered upon this second phase of its evolutionary history, and in shaping its destiny, the prodigious industry and the unparalleled success of Sir Venkataraman and his brilliant school of research workers will afford an inspiring influence.

During the gay fortnight over which the festive celebrations extended, duly punctuated by scholarly speeches and amusing athletic exhibitions, ample opportunities must have occurred for the old graduates who have attained distinction and opulence to inspire confidence into the younger generation, by narrating personal anecdotes, and for the present students to discuss with their old predecessors, those intricate and difficult problems which must sooner or later confront them on their emergence from the sheltering wings of the college. We suspect that the young men might have been assured that industry would be their bread and attention their butter, while for inspiration for higher endeavour, they could at all times rely on the magnificent traditions of their institution and the splendid achievements of the older generation. While we admit on theoretical grounds that this attitude towards the stern and unbending realities of life, may be perfectly unimpeachable, we believe that there must have been a few contemplative minds in the festive gathering, who might have taken a more serious view of the fate and fortune of the large assemblage of young men and women who pass out of the college annually. To our mind the obligations of the older generation of graduates extend slightly beyond paying

homage to their college and rendering tributes of praise in an impersonal fashion to its greatness. We hold the view that the old students constitute the stewards of the rising generation, and the personal contacts established at the social gatherings might take some tangible shape in solving their exigent and embarrassing problems. We do not suggest for a moment that the annual and occasional festive assemblies should resolve themselves into round-table conferences for seriously discussing problems of careers and unemployment; but we doubt whether educational institutions can reasonably accept the responsibility of admitting large bodies of young men and women and yet remain impassive to the consequences of their efforts. Suppose we grant that continuous improvement in the social organism must precede all solution of the problem of unemployment, and that such an improvement is possible only when the whole society is reorganised economically and psychologically by incorporating mechanical progress into its general framework, then the question remains as to who should direct and control the whole process of adjustment. Do the colleges and the Old Students' Associations have any share in the task of relieving the accumulation of society's functional disturbances, euphemistically called unemployment, which inevitably must result from the educational and technical expansion outstripping social progress and adjustment.

We have no direct means of ascertaining the intentions underlying the celebration of the Foundation Day of the Presidency College. Beyond the excellent official report of the Principal of the College and the delightful reminiscences contributed by a

few distinguished old graduates, has the College anything else left to remember the great event by? We hold the view that, apart from the statues and portraits of defunct professors being inspiring examples for the present students to emulate, and for the old students as objects of recollection of their own life in the college, similar statues and portraits of past graduates who were prodigies of intellect in their college days, and who in later life became the most distinguished ornaments of society, and who have rendered the most conspicuous service to the country in the departments of public life in which they had chosen to labour, must be far more stimulating to the successive generations of young men for increased exertions to shape and mould their character on the pattern and ideals of the lives of their eminent predecessors. We conceive that a statue or a portrait of men such as Raja Sir T. Madhava Rao, Sir K. Seshadri Aiyar, Sir P. S. Sivaswamy Aiyar, Sir C. Venkataraman and Sir C. P. Ramaswami Aiyar should by its presence galvanise the intellectual and social life of the students; and the beginning already made by the portrait of C. Vijayaraghavachariar being added to the College Gallery, will, it is hoped, be followed by the artistic records of other distinguished old graduates. The message of statues and portraits must, however, always be subconscious, unless there are authentic and full records commemorating the history of the originals, with such clearness of narration and elegance of language as would constitute them into the most perfect form of biographies. The Centenary celebration should have been the most appropriate occasion for the publication of such memorial

volumes, and the Presidency College so full of culture and so full of great men, does not lack exponents of the former and portrayers of the latter.

‘ASCU’ WOOD PRESERVATIVE

THE spate of comment and enquiry that has reached us since the publication of the article on this subject in the previous number of *Current Science* is indicative of the widespread interest taken in and the rather nebulous position created by the withdrawal of *Ascu Record* by the Forest Research Institute, Dehra Dun. The relative facts can be stated in simple terms. When wood preservation was not part of the normal technique of timber utilisation in this country, *Ascu* was brought into being at Dehra Dun. The new process was considered to be of such promise that the Railway Board—one of the largest timber consumers in the country—appointed a Committee presided over by Sir C. V. Raman to examine the claims of *Ascu*. This Committee opined that the data then available, justified further experimentation. In the meantime, although the Forest Research Institute in their publications indicated some of the points requiring further elucidation, they definitely and even enthusiastically advocated the adoption of the process. Indeed, such was their confidence that so lately as in 1937 Sir Gerald Trevor, then President of the Forest Research Institute, in an article “Wood Preservative in India—Cresote vs. *Ascu*” summed up that in a choice between the two “the answer is in favour of *Ascu* every time”; this is very high praise to a wood preservative. As a direct result of