

VOL. XXXIX

No. 10

# THE THEOSOPHIST

---

## ON THE WATCH-TOWER

THE Scottish Annual Convention has been held, and was presided over by the Vice-President of the Theosophical Society, Mr. A. P. Sinnett, the President of the famous "London Lodge". Few members of the T. S. can point to a record of service so long and so unsullied as that of Mr. Sinnett. Wherever Theosophy has spread, his name is known and honoured, and none can say to how many thousands his books have brought the Light. The Convention cabled to me its "loving greetings," for which I send my grateful thanks.

\* \* \*

From Switzerland also comes a cable, sending affectionate greetings from the Swiss Convention to the President of the T.S., and to that fair mountain land I send an affectionate thought, the land so wonderful in its physical features, the home of a race so sturdy, so simple, and so freedom-loving. Round it the War waves have been dashing for nearly four years, yet no hostile foot has dared to cross its boundary, no belligerent has ventured to seek a way across it for advantage of its own. For Switzerland's Citizen Army is formed of men who have been trained to arms from early boyhood, and thus

add discipline and skill in manœuvring to the solid strength of their resolute and stalwart manhood.

\* \* \*

A new National Society has just been chartered, that of Denmark and Iceland, separating itself from Scandinavia, with the approval of the General Secretary of that Section. When the European Section broke up into its constituent countries, as each country felt strong enough to stand on its own feet, Sweden, Norway, Denmark and Finland joined together to form the Scandinavian Section. Finland was the first of the four countries to separate itself off into a National Society. Norway, after a time, became autonomous, following its political independence. Now Denmark feels strong enough to form a National Society, leaving Sweden by itself, and we presume that it will drop the epithet Scandinavian, and call itself the Theosophical Society in Sweden. It is convenient to follow linguistic divisions in a democratic Society like our own : even where there is a common language, racial differences and geographical position have led to the establishment of National Societies. The Dominion of Canada is still part of the Theosophical Society in America, but I should not feel surprised at the receipt, at any time, of an application for a charter for the Theosophical Society in Canada. England and Scotland have their respective National Societies, and have grown all the stronger by the recognition of the principle of Nationality.

\* \* \*

“Diversity in Unity” is the true evolutionary motto, for in the full development of diversity is the very object of the evolution of Humanity in Races and Nations—as in sexes, we may add—subserved. “From the homogeneous to the heterogeneous” is one of the scientific definitions of Evolution, and thus will the full chord of World-Perfection be ultimately struck. The Roman Catholic Church and Islām are both

exemplifications of the ideal of Diversity in Unity, for both overleap the barriers of Nations, uniting various Nationalities in the identity of religious belief; hence both are mighty forces, and each is sometimes felt as a menace by men of narrower mind, who realise the super-national synthesis of these mighty Faiths. The Theosophical Society strikes a yet higher note, by overleaping the barriers of Religions as well as those of Nations, thus constituting a world-wide Human Synthesis. As Roman Catholicism and Islām do not weaken any Nation, but allow each Nation to develop to the full its own specialities as a contribution to Humanity, making a more complex, more rich, and more varied harmony within the Religious Unity—English, Irish, French, German, Austrian, Italian, Spanish, with traces of other Nations in the one case; and in the other, Turkish, Egyptian, Arabian, Persian, Afghan, Indian, and others—so in the Theosophical Society every Religion develops to its fullest possibilities, and adds its special contribution to the Human Unity, which strikes the full chord of all that temporary diversities have wrought out in wondrous wealth of tones and overtones, until, when our globe's cycle is over, God shall see reflected from it that fragment of His infinite perfections which was given to it as a seed at its beginning, to work out in its evolutionary course to the Perfect Flower. Only by such Diversity in Unity can the finite mirror a fragment of the Infinite.

\* \* \*

Mr. J. C. MacCartie writes to us of the death of his eldest son, bearing the same name as his father, a member of the Theosophical Society, of the Order of the Star, and of the Round Table. He enlisted in October, 1915, when only twenty years of age, and went to the front in 1916. He fought at Ypres, Armentières, Ploegsteert, Beziers, Bullecourt and other places all along the Western Front, and was wounded several times by shell explosions, machine-guns and shrapnel,

seeming to bear a charmed life, but ultimately succumbed in hospital from the effects of repeated gassings. He went into the Great War from a pure sense of duty, disliking the military life, and his father speaks of him as "always making light of his trials and sufferings, lest he should depress us". His cousin, a lad of twenty, was killed at Armentières in 1915. The gallant young Theosophist will probably return to earth swiftly, to help in the building of the New Civilisation. Such young men, acting from a high sense of duty, without hatred, who have perfected their sacrifice by death, make a great leap forward in evolution, and win the right to return as Builders of the New Order.



I wish that all General Secretaries would make a list of all the members of the Theosophical Society of their respective countries who have made the Great Sacrifice, and would send on the lists to me.



The most astounding thing that we have ever read in the way of hypocrisy—the homage that vice pays to virtue—is the claim of the German Emperor, the nearest approach to "Anti-Christ" that the modern world has seen, that the German world-view is the upholding of "Right, Freedom, Honour and Morality" as against the Anglo-Saxon world-view of the "idolatry of Mammon". The audacity of the claim takes away one's breath. "Right" is upheld by the Power that tore into scraps of paper the treaty affirming Belgian neutrality; "Freedom" by the Power that makes Frenchmen and Belgians, living in the occupied territory, labour under the lash to create fortifications against their countrymen; "Honour" by the Power that corrupts with its gold its neighbouring countries, bribing their citizens to foulest treachery; "Morality" by the Power that torpedoes hospital-ships and passenger steamers, that bombards hospitals filled with the wounded, their

doctors and nurses, and that carries away virgin girls from occupied lands to be ravished by its soldiers. God save the world from such an upholder of Right, Freedom, Honour and Morality. As to Anglo-Saxon idolatry of Mammon, the taunt might have had some sting before the War for Britain and America. But who can say that both countries have not purged themselves of this idolatry by pouring out the blood of their best and bravest men and their enormous treasures to ransom the world from the German menace of Might, Tyranny, Dishonour and Crime? America can gain nothing material from this War: Britain certainly did not enter it for gains in either land or money. The taunt is pointless. As to France and Italy, which, with Ireland, are the Idealists of Europe, none has ever accused them of idolising Mammon.

\* \* \*

I am much astonished and grieved to find that my words on the French Revolution on p. 592 of our March issue have given pain to some of my French friends. I certainly had no idea of depreciating Revolutionary France. The "horrors" alluded to were—as I have often pointed out—the results of a maddened proletariat, maddened by starvation, the profligacy of the feudal nobility, crushing taxation and infinite wretchedness. I did not say, as one friend writes, that the *Marseillaise* was the song of the *noyades*. It was the song of the glorious revolutionary armies of France. The allusion to the Swiss Guards was caused by the fact that the Marseillais who marched into Paris singing it, arrived just before the attack on them and took part in it. But in any case, no depreciation of the great work of the Revolution was intended, and I am only sorry that my words were read in that sense. My French friends should know my lifelong love for France.

\* \* \*

Here, in India, we are living in the condition of tension which results from keen expectancy. We are waiting for the

promised Reforms, as hammered out by H. E. the Viceroy and the Rt. Hon. the Secretary of State for India. The papers are full of rumours, of contradictory statements, all on "high authority". The atmosphere has been rendered more electric than ever by the partiality shown in the issue of passports, allowing well known enemies of Home Rule to go to England, while turning back Home Rulers, so that India's case will be heard with witnesses on one side only, instead of being given an impartial audience. Still more electricity has been contributed by the Governor of Bombay, who invited Mr. Tilak and his friends to a War Conference, assuring them of free discussion by a letter from his Private Secretary, then, in his opening speech, making an attack on them, and silencing them when they sought to explain their position.

\* \* \*

Mr. Montagu's simulated wrath with Dr. Subramania Iyer—I say simulated, because he knew the whole thing six months ago, and cannot have been at boiling point ever since—has exasperated the people of India, who revere Dr. Iyer as a saint and are proud of his career, of his brilliant intellect and dauntless courage. Altogether, the cockle-shell boat of Reforms is likely to be tossed about on a somewhat angry sea.

\* \* \*

The point raised—of the right of a subject Nation to plead its cause before a Nation friendly to itself and to the ruling race—is one of great interest, quite apart from the special case of India's appeal to the President of the United States. Nations in revolt have appealed for armed help to other peoples, and many "Foreign Legions" have played their part in the liberation of a country in which revolution had broken out. The case of the treatment of political prisoners by Russia, in the days of the Tsardom, was to some extent laid before America, but I do not remember if any definite action took place. Gladstone thundered over the

Armenian massacres, and emissaries from Armenia visited England, but I do not think that any official action was taken, though money was collected and sent out.

\* \* \*

Ireland, however, with so many of her sons and daughters growing up in the United States, has had close contact with America, which has been the great collecting area for Irish patriots, whether Parliamentarians or Fenians, during the long years of her desperate struggle for freedom. It is frankly admitted that the British Government has lent a courteous ear to the advice of President Wilson where Ireland is concerned, and that he insists that the principles which alone can make the world a fit place to live in, for the vindication of which America entered the War, shall not be denied by Britain in her relations with the Emerald Isle. The Allies in Europe depend on the United States for victory in the War; hence President Wilson's advice cannot be lightly rejected.

\* \* \*

It is this which causes the furious anger against Dr. Subramania Iyer's appeal, backed up as it has been by a vigorous newspaper campaign, and also by the direct personal appeals of Mr. and Mrs. Hotchner to the best known people in the political and social worlds of the States. Roosevelt, Taft, House, Bryan, and other men of similar standing have lent them a ready hearing, and thus India's plea has spread far and wide. It is the knowledge of this which has angered anti-Indian politicians, and the measure of this anger is the measure of our success.

\* \* \*

This appeal is the harbinger of many, which in the future will be made to the International Conscience of Mankind, and will take the place of revolts, revolutions, and wars. The International High Court of Appeal will be the Court of Justice of Humanity, to which the oppressed will turn in future

generations, and, in these early days, President Wilson stands as the embodied Conscience of the Race, the Judge of the quarrels between Nations. It is natural that persons belonging to Sovereign Nations, who have hitherto brooked no interference from outside with their internal affairs, should eye askance the new method. But among the lessons of the War surely this is one—that henceforth physical force shall not decide questions of Right between Nation and Nation.

\* \* \*

Germany stands for embattled Might, claiming that physical power is the supreme arbiter in human affairs. The Allied Nations are battling against that barbarous doctrine, and proclaim Right as the banner under which they are determined to fight, to conquer or to die. International Justice is to rule even in the relations of the proudest peoples, and India appeals to that Justice in Dr. Subramania Iyer's letter to President Wilson. It is the herald of the New Order, for which the world is battling, the Ideal of the Rights of Nations, as the Thirteen Colonies battled for the Rights of Man. There is something peculiarly appropriate in the coincidence that the Colonies which fought Britain for their own freedom in the eighteenth century, should, as the Great American Republic in the twentieth century, reason with her for the freedom of Nations, the freedom of Ireland and of India. We, who believe in the Supreme KING, who rules over the Nations of the world and the evolution of mankind, need not let our hearts be troubled or afraid, for Right will triumph over Might, and the end will prove that the power of Spirit is greater than the power of the flesh.

---



## NATIONAL EDUCATION

By G. S. ARUNDALE, M.A., LL.B.

**R**EADERS of THE THEOSOPHIST are probably aware of the fact that a Society has been established for the Promotion of National Education in India, for one of the leading promoters of the movement is the President of the Theosophical Society herself. But they may or may not be cognisant of the conditions under which the Indian child receives such so-called education as is vouchsafed to him or her under the present Governmental Dispensation. Probably they assume that education is as National in India as it is elsewhere—education of the people by the people for the people. That there may be defects in the National system goes without saying; but it may be wondered why a Society has to be established to promote that which presumably exists already.

Now the fact is that India has no National education at all. The educational system obtaining in India is foreign in

origin, foreign in control, foreign in spirit, and foreign in aim and objective. It came over from England in the early years of the nineteenth century, and is less up-to-date than any other system in the civilised world. Foreigners control it, for, though the member of the Viceroy's Council in charge of Education is an Indian, he can do practically nothing. Every Director of Public Instruction throughout the country is a European. All the higher posts—both teaching and administrative—are in the hands of Europeans. The Inspectorate, in the higher branches, is largely composed of Europeans. It is a Conference of Europeans that lays down *Indian* Educational policy. The Mother-tongue is exploited by English in almost every class. The interests of Britain, especially those of Lancashire, have combined to make industrial, commercial, technical and agricultural education almost a farce. The policy of the Government is to observe a so-called religious "neutrality," which is seen in the fostering care bestowed on missionary institutions and in the maintenance of an official Christian Church Establishment out of Indian funds. Patriotism is everywhere discouraged, and sycophancy insisted on through innumerable devices. Self-Respect and Self-Reliance are as little wanted in India as they are deemed essential qualities everywhere else. India spends less on education than any other country in the world. Practical education is unnecessary for a country which is mainly intended to produce raw materials for foreign machinery. Among 300,000,000 people there are hardly as many Agricultural Colleges as can be counted on the two hands. Commercial and Technological Colleges are conspicuous by their rarity. The education of Indian girls may be said to be non-existent—not one girl in a thousand receives any education at all.

For these and for innumerable other reasons—the neglect of Indian music, Indian art, Indian medicine, Indian physical culture—the Society for the Promotion of National Education

has come into existence, bringing with it a National University—later to be split up into a number of National Universities, each serving a unilingual area, with the prospect of many more as the spirit of Nationalism spreads. The greatest men and women in India direct this National movement in Education. Sir Rabindranath Tagore, Poet Laureate of India, a genius of world fame, is Chancellor of the University. Mrs. Sarojini Naidu, almost equally well known throughout the world, is a member of the University Senate as well as of the Governing Body of the Society. Other great names are those of Mr. B. G. Tilak—called throughout India “Lokamanya” Tilak, Tilak “Beloved of the people”—Sir S. Subramania Iyer, late Chief Justice of the High Court of Madras, Sir Rash Behari Ghose, the greatest lawyer in Bengal and President of the Society, the Hon. Mr. M. A. Jinnah, of H. E. the Viceroy’s Legislative Council, and the Hon. the Raja of Mahmudabad, the two latter being the leaders of Muhammadan life and thought in India. Mrs. Annie Besant is the Chairman of the Executive Committee. I do not want to weary my readers with names, but I hope it is clear that the whole of the country—without distinction of creed or sex or race—is at one in its demand for *National* as opposed to *Foreign* education.

The new movement does not seek to oppose the Government, but rather to set up its own educational activity on an independent basis. Convinced that the existing system is utterly wrong, convinced that no tinkering at the superstructure will substitute good foundations for rotten foundations, the Society for the Promotion of National Education seeks its goal by providing young India with educational institutions in which as many of the elements that go to make up National Education may be present as resources and teaching capacity permit. Leaving almost entirely alone the purely literary side of education—there is far too much of it, with its perpetual cram and soul-quenching home-work—the Society wisely confines its activities

almost entirely to agricultural, commercial and industrial education; encouraging, however, the spread of elementary education, especially in the villages, since this vital feature of all true education is inexplicably neglected by the Government. In connection with the latter work, efforts will also be made to provide for the training of teachers—a degree in teaching having been instituted; but the main objective in this direction will be the training of teachers for rural elementary schools, so that the present lack of teachers may gradually cease to be an excuse for leaving innumerable villages unprovided with any kind of education whatever. It is hoped to open a Training College in Madras for the above purposes, if funds are forthcoming. A Commercial College has already been brought into existence, while an Agricultural College will be established almost immediately. A Technological College is under consideration, and if the preliminary sum of Rs. 10,000 (£700) be provided, the Society will probably be able to start it. All these activities are in Madras, because the Madras public has subscribed more liberally to the funds of the Society than the people of any other part of India. But similar institutions should be established throughout the country as soon as the rest of India realises the importance of following the lead of the Presidency of Madras. Sindh, I must hasten to state, is doing remarkably well, for several National schools are in contemplation, while a National College is already in working order. Bengal, too, has in the past been a great pioneer in National Education, but of late she has fallen behind; partly, no doubt, because of her political troubles, but also because the wave of popular enthusiasm, upon the crest of which in 1905 came National Education, has not been sustained, although she can boast of some of the greatest living teachers as her sons—Sir Rabindranath Tagore, Dr. P. C. Roy and Sir J. C. Bose.

The supreme importance of the mental and medical care of school children having been entirely neglected by the

various Governments in India, the Society for the Promotion of National Education is about to establish two clinics, both for treatment and for scientific investigation into the conditions of Indian childhood. Such an investigation has never before taken place, and we are as utterly in the dark in 1918 as to the special features of Indian childhood as people were in Europe twenty years ago or so, when first began the movement for the scientific study of childhood. The Indian Pestalozzi, the Indian Froebel, the Indian Montessori, have yet to come; and since the Government of India remains indifferent to modern tendencies in Education and their application to India, it behoves lovers of India to do all in their power to remedy the situation, until a Home Rule Government does justice to the Indian child.

Leaving aside the types of education needed, the kind of education to be given in National institutions has engaged the very serious attention of the Society's educational experts. The facts that in seventeen years there has only been an increase of 9,000 candidates for the Matriculation examinations of the Indian Universities, that 90 per cent of children in Indian schools—there are about 7,020,000 in school altogether, out of a population of over 300,000,000—never go beyond the lower primary stage, that the graduate is often called "the cheapest commodity in the market," show that there is something radically wrong with the existing system, for all who have any first-hand acquaintance with Indian youth are deeply impressed by their eager desire to learn. Poverty, coupled with comparatively high fees, has, of course, something to do with the tragedy of Indian education. But the truth is that the existing system is working *against* the National spirit, and, save for the purpose of entering Government service or a learned profession, it is not worth while to go to school. Most Indian merchants do not as a rule care to send their children to school, partly because nothing useful is learned therein, and partly because the average school is a lethal chamber, if

not an agent of crueller destructive capacity, for Indian traditions and the Indian outlook. Even the Boy Scout Movement was forbidden to Indian youths, until the action of a few Indians, headed by Mrs. Besant, by establishing the Indian Boy Scouts Association, forced the Government of Madras to start a rival movement lest our influence grow too pronounced, and, perhaps, out of very shame! Even now Sir Robert Baden-Powell, un-scout-like, refuses the right to "native" boys to become scouts, so I do not know how the Madras Government is going to manage its new venture.

The Society, therefore, recognising that there was little or nothing to go by in the farcical apology for education imposed upon India by foreign influences, determined to free itself from tradition and orthodoxy and to try to give to Indian youth the kind of education best suited to individual and National needs. Having regard to Indian conditions, it was decided that religious instruction, with, of course, the conscience-clause loophole, must form the basis of National Education in India. Hence religious education is a compulsory subject of instruction in National Education, though it is not a subject of examination. Graded courses have been drawn up, so far as regards Hindūism, for the lowest classes and right through to the highest classes in the college department. Of equal importance is physical culture. Physical culture—both theoretical and practical—is also, therefore, compulsory, and, in addition, forms a subject of examination. Under the heading "theoretical" are taught elementary physiology, hygiene, the care of the body, etc.; while under "practical" come games, physical exercises, first aid, etc. And candidates at examinations must satisfy the examiners under both headings. Thirdly, citizenship being obviously the objective of education, "Indian Citizenship" is another compulsory subject, with both a theoretical and a practical side. Physical culture and Indian Citizenship are carefully adapted to the varying capacities of the pupils in

the different classes, but from the very beginning the child is made to understand that he or she is a citizen of the Motherland, has the right to be proud of such citizenship, and has duties to perform as a citizen of India. The duties may be few and small, or many and important. But citizenship begins at birth, and must be recognised from its duty aspect as soon as duties begin to take their place side by side with rights.

Upon these three great foundations of National Education are built the superstructure with all its ramifications. Vocational activity, observation and nature study, music, singing, drawing, painting, geography, history, mathematics, the sciences, languages, the industries—all are expressions of trained citizenship through a healthy body and guided by a reverent will. Examinations—at least the more formal—are put off as long as possible, and when they become inevitable—as, for example, at the ages of 14 and 16, when many young citizens have to be content with such training as they have already received, or at the age of 17, for admission to the college, or at 20, for graduation—the Society follows the plan recommended by Lord Haldane's Commission in respect of the University of London, and makes its examinations real tests of knowledge and capacity—not depending alone upon the actual examination itself or upon foreign examiners, but upon the work done up to the examination itself and upon the joint decision of external and internal examiners, the latter being required to see that the candidate's normal capacity is taken into consideration, and not its distortion as caused by the strain and anxiety of the conditions surrounding the ordinary examination. India's system of examinations is disgraceful in its cruelty, and the Senate House, where many of the examinations take place, is popularly known as the slaughter-house.

With regard to Indian Citizenship, I may add that the special importance of this subject is due to the fact that the

Indian is practically a stranger in his own land, under the results of the existing system of education. In free countries, the child grows naturally into citizenship. His citizenship is recognised and provided for from the very outset. But in India the object of education is to produce Government servants, and Government servants alone. Even the Agricultural and Industrial Colleges are mainly intended to send men into Government departments, not to train owners of land or of business to manage their own affairs.

For this reason, indeed, the half-a-dozen Agricultural Colleges in India, especially the College at Coimbatore (S. India), are a failure ; and the one or two commercial institutions are all theory and no practice. The Indian is not wanted for citizenship but for servile obedience, and he is educated accordingly. Hence the Society for the Promotion of National Education lays the greatest stress on the subject of "Indian Citizenship". From the standpoint of theory, the course is intended to acquaint the pupil with the principles of citizenship, what citizenship means, what are its rights and duties, types of citizenship, the privilege of Indian citizenship, the history of citizenship in India, the services India specially asks from her citizens at the present time, the obligations and advantages of citizenship of the British Empire, the future of citizenship. From the standpoint of practice, the course involves active social service on the part of every student according to his or her powers and age. Both theory and practice are graded so as to suit different ages and differing temperaments. But the underlying principle is that citizenship begins from birth, and that the school and the college are training-grounds for citizenship—the young citizen being gradually educated to the responsibilities of full citizenship by fulfilling appropriate duties to his surroundings while in school and college.

I have no space to go more elaborately into the Society's methods. Mrs. Besant has issued a pamphlet entitled *Principles*

*of Education*, which has been approved by the Society, and which gives the general scheme on which the Society is working. Detailed courses are at present being worked out—by the various Faculties of the National University for the Colleges, and by the Central School Board for Schools. These will be published in due course for criticism and will be worked experimentally during the coming year.

It is obvious, from the success so far achieved, that National Education has at last come to stay, and since the Society specially aims at filling the innumerable gaps left by the official system, there will, we are assured, be no difficulty in providing careers for successful students. Agriculture, commerce, industry, teaching—all clamour for trained workers, and since the existing system cannot or will not supply them, there can be little doubt that Nationally trained students will be most welcome. Again, the education of girls is for the most part in the hands of missionaries. Profound dissatisfaction exists with missionary methods and missionary objectives. In mission institutions the girls are definitely de-nationalised. But, for want of organisation, missionary influence has been allowed to dominate Indian education for over a century. The Society for the Promotion of National Education is establishing National Girls' Schools everywhere, and the response is enthusiastic.

Prospects, therefore, are bright; and, though for want of funds much cannot be done while the War lasts, a new spirit can at least be infused into education. A beginning can be made to give back to India control over the education of her sons and daughters, and to make such education Indian in spirit and in purpose. And when the War is over, and Home-Rule comes, the existing system will automatically die, and India will be able to give her youth the education the youth of all free countries have been receiving as a matter of course.

G. S. Arundale

## THE WORLD IN A.D. 2100

By W. WYBERGH

**I**N the midst of the terrible events of war our attention is naturally fastened upon the appalling destruction of human life that is going on. So far has this destruction proceeded that we are absorbed by the problem of a reserve of manpower to carry on the struggle, while those who look ahead are already concerning themselves with the future repairing of the damage, and the virtual repopulation of some countries such as Serbia and Armenia. But it is well, nevertheless, to bear in mind that the perennial and permanent question that faces mankind is not that of providing the population but of ensuring to it food, shelter, breathing-space, and congenial occupation and surroundings.

For many years past, our boasted civilisation has been forced to admit that there are millions of people in its midst who are unprovided with these primary essentials, but it has also been pointed out with great force and truth that under normal conditions of so-called "peace" it has not been the case that an insufficient quantity of food and necessaries has been produced to go round, but that our social organisation is at fault, in that we have failed to ensure the proper distribution of these things. For, under present conditions of population, natural resources, and scientific knowledge, it is in fact possible to produce all and more than all that everybody needs, without even working very hard. For instance, some years ago, a prominent Austrian economist, whose name has escaped my

memory, after careful and detailed investigation demonstrated that if everyone in that country worked for something less than four hours a day on intelligent and useful lines, it would suffice to produce not merely the bare necessities but luxuries also for the whole population! Now it is probable that all countries are not so favourably situated, but still it is true, taking the world as a whole, that with reasonably good organisation sufficient can easily be produced to satisfy every need of every one of its inhabitants, and that there is even an ample margin.

But will it always be so? And if not, how long will present conditions last?

One of the things that seems to me to point most cogently to the fact that we are near the end of the age is the obvious and rapid filling up of the world, and the still more rapid increase in the demands made upon our natural resources. In many respects, notably in our rapid exploitation of minerals, and our reckless and wholesale exhaustion of the virgin wheat and timber lands of the new world, we are using up supplies that have been accumulating for ages. Vast changes have taken place within the lifetime of even middle-aged men: "progress" no doubt they are, but progress towards what? I think of the map of Africa as I knew it when, as a schoolboy forty years ago, I began to study geography and to be keenly interested in exploration. In those days it consisted chiefly of romance and blank spaces; to-day, with the exception of some three hundred miles, the journey from Cape Town to Cairo can be made by rail or steamship. I think of Canada, Siberia, the United States, and their huge tracts of unknown, uninhabited wilderness, now the granaries of the world. And often, when thinking of this older world, fresh and virgin, of the wagon track winding its way into the far interior, of the long tramp, or the good horse between my knees, of the bed in the desert under the stars, I have thought

also of London or Liverpool, of the office, the tube and the motor-car; and have thanked God that I am privileged to live in the comparatively unspoiled world of to-day, instead of in what threatens to be the machine-ridden monstrosity of a couple of hundred years hence, in the day when every path has been trodden, every peak climbed, every waterfall harnessed, and when every savage wears trousers and votes in the Municipal elections. It will be a dull world, if it is no worse. None the less—perhaps because I am a natural optimist—I have at the same time believed this feeling to be an illusion, and that in spite of appearances the generations to come, and I myself when I return, will find freedom and breathing-space in ways, different it may be, but equivalent to our own. It may be that we shall be less dependent upon our physical surroundings and that new worlds will open to our inner consciousness a door of escape from mechanism, a field for the imagination and for the spirit of discovery and adventure. For after all we live in an infinite universe.

But indeed the world threatens to be something a good deal worse than dull, if scientific calculations are to be believed. A remarkable article by Mr. H. G. Hutchinson, entitled "World-Congestion and the Real Armageddon," appeared in *The Quarterly Review* for October, 1917, in which he reviews a number of the most recent statistical publications bearing on the subject. Of course it is not a new one, and the name of Malthus, if not his writings, will be familiar to all; but still it is interesting to have the matter brought up to date, and to consider the possibilities in the light of such information as is available to those who accept Theosophical teachings.

The most reliable calculations of the present population of the world agree in an estimate of a little over 1,600 millions. The exact figure, taking the Mongolian races at 400 millions, is given at 1,623 millions, but there is a considerable element of uncertainty in the estimation both of the actual

population of China and of its rate of increase. It may be noted in this connection that Mrs. Besant some years ago, in arguing the case for reincarnation, referred to our ignorance concerning the increase or otherwise of population in China, and suggested that the world's population may not really be increasing as a whole. Similar doubts may arise in the minds of some people when they consider the widespread phenomenon of the dying out of aboriginal populations before the advance of modern civilised races, whether by war, pestilence, or simple infertility. But in reality the local diminutions of already decadent races, considered statistically, are of very small importance, for even prior to their contact with white men, their numbers in any case were always relatively very small. Moreover it must not be forgotten that, as an offset against this, the uncivilised, aboriginal tribes in some parts of the world, notably in Africa, are rapidly increasing since the suppression of slave raiding and inter-tribal war. The most that can be said with confidence is that, taken as a whole, the more primitive races are not increasing at the same rate as the more advanced. With regard to the Chinese themselves, certainly one of the most numerous races on earth, the discrepancies between the various estimates and the probable margin of error are not so great as to nullify the general conclusions arrived at as to the rapid increase in the world's population as a whole. The question of the rate of increase is naturally a more difficult one, especially in the case of China. There are two independent ways of arriving at it, *viz.*, by means of the birth- and death-rates, and by calculations of the actual density of the population per square mile in various countries from time to time. By the former method Mr. Longstaff arrives at the conclusion that the population of Western Europe, without including Russia or the Balkans, will by A.D. 1990 total 455 millions. Dr. Newsholme again foresees the doubling of the population of Prussia in 49·2 years, of

England in 59·1 years, Italy in 65·7 years, Austria in 74·1 years, and France, where the birth-rate has for many years been exceptionally low, in five hundred and ninety-one years. The figures for Russia, where the birth-rate is exceptionally high, are not given. These figures are regarded as indicating the probability of a world population of 6,492 millions in two hundred years' time, on the assumption of a present population of 1,623 millions.

It will be observed that this probability is based upon an assumption of two doublings taking place, each requiring one hundred years. This is considerably slower than the average actual rate of increase according to the above figures, and therefore it is probable that it includes an allowance for a much slower rate in the case of less fertile races, and possibly also for the tendency to a diminishing birth-rate which is universal among the races of Europe. Judged again by density of population the calculation shows that between 1820 and 1890, *i.e.*, in seventy years, the density of population in Europe as a whole has increased from 54 to 90 per square mile, although millions of people have been supplied to America and other parts of the world and there has been practically no immigration into Europe. These figures certainly tend to confirm the estimates based on birth- and death-rates, and, putting all together, it certainly looks, as Mr. Hutchinson says, as if the world will be very much fuller, and probably congested, in a little less than two hundred years from now.

Of course these calculations are based upon the assumption that the rate of increase which has obtained for the past one hundred years or so will continue for the next two hundred years. It is an assumption, but there is nothing very extreme or unwarrantable about it. At the same time a glance at history shows that in any case it is not the normal and constant rate for humanity. For if, five thousand years ago, the human race consisted of a single pair, which of course is not the case, that

period would only imply 50 doublings, but these 50 doublings would have involved an almost unthinkably great figure, considering that only 32 doublings would result in a total more than five times as great as the whole present population of the earth. There is no need to discuss the result of taking as a basis, not five thousand years, but the immense age now assigned to the human race by geologists, let alone clairvoyant investigators.

The question then arises, if the present rate of increase is due to some temporary cause, what is that cause, and will it be operative for the next two hundred years? Mr. Hutchinson does not discuss the probable nature of this cause, but confines himself to considering some of the various agencies known to science which might tend to put an end to the increase. Thus, in reply to those who, under the influence of the "noble savage" idea, contend that civilisation is a condition that ultimately will reduce fertility, he quotes Darwin's opinion that the reproductive power of civilised races is greater than that of savages. Neither, according to Mr. Udney Yale (*Journal of the Royal Statistical Society*), does town life in itself check fertility. Again there are some who, regarding the enormous loss of life in the present war, think that this constitutes a decisive check upon the world's population. But however great may be the local effects, if the loss of life should amount to ten or even twenty millions, even this terrible slaughter cannot affect the main question when a population of 1,623 millions is concerned. Mr. Hutchinson does not refer to the economic argument that population automatically adjusts itself to the food supply, although this would probably be regarded by many materialists as the main factor governing both increase and decrease, and as the best argument against the possibility of any intolerable congestion. While it is of course true that scarcity of food must impose an ultimate limit upon population, it would be equally fallacious to regard it as any hindrance to congestion and over-population, as, on the other

hand, to regard plenty as the *cause* instead of merely the necessary *condition* of increase. Obviously such a check can only become operative when the actual and immediate shortage of food has already begun to affect physical health. It will never be sufficient to prevent congestion, for it only comes into effect when congestion is already acute. That uncertainty, and even actual hardship, do not act as an effective check, is shown by the fact that the lowest rate of increase is found among those classes who are best off and most free from the fear of want, while those who are living from hand to mouth, but above the actual starvation level, are precisely those who are increasing most rapidly. The slow increase of the French nation of late years, as well as many other examples, negative definitely the idea that either civilisation or plenty can be the *cause* of increase. Whatever that cause may be, it is evidently something more fundamental than economics, and at any rate there is no good reason to be found in the material world why the present rate of increase should not be maintained. So far, then, as can be perceived, there are no agencies visibly operative which can prevent the arrival, a little sooner or a little later, but in any case quite soon, of a crisis in human affairs compared with which the present war is as nothing.

For it is quite certain that the food supplies of the world are not increasing at the same rate as the population, while the space and the amenities of life dependent thereon are obviously a fixed quantity. While there is at present, apart from the actual disturbance caused by war, a sufficiency of both food and space, and the food supplies are capable of being greatly augmented, it is clear that a limit must at some time be reached. Scientific estimates of the maximum population which the earth is capable of supporting indicate about 6,000 millions, and long before that figure is reached the problem will have become tragically acute. It is pointed out that, unless human nature is changed, the battle will be to the

strong, and a crisis will be staved off as long as possible by a pitiful destruction of the less effective races, culminating in a struggle between the strongest nations, terrific and tragic beyond anything known in human history.

Now it is easier to ignore or to ridicule these conclusions than to controvert them, but as a matter of fact there is reason to believe that such considerations figure considerably in, if they do not indeed lie at the root of, the present world struggle. The good, easy-going, shortsighted people who constitute the bulk of the British nation, who take the world as they find it, and habitually act upon the assumption that things will always be very much the same as they are to-day, have always been unable to conceive what the Germans mean by their "place in the sun" or their "freedom of the seas". Have they not always had these things? And why should they *want* to see "*Deutschland über alles*"? What, when all is said and done, is there to be gained by such an achievement? Why could they not have continued to be friends with the rest of the world, for surely there is room for all? It has often been pointed out that, if the recognised principles of civilisation are observed, war in reality leaves things very much the same as before. Under whatever government they may be, the losers are still there, still in possession of their lands and property, still manufacturing their goods, still holding their old ideals and preferences. Economists like Norman Angell and many different varieties of pacifists have been so impressed by these considerations that they have refused to believe in the possibility of war. But they forget that this is a true picture only as long as there is sufficient of everything to satisfy both the conqueror and the loser, and so long as civilised conventions are observed; and they forget that this may not always be the case. Mr. Hutchinson suggests that the farsighted, thoroughly materialistic and unscrupulous men who frame the German policy are perfectly aware of the

approaching world-congestion, and that their policy is deliberately intended to prepare for it. If that is so, it seems to me to afford some explanation of some of the most sinister and otherwise hardly explicable features of their conduct of the war. They are only anticipating what they believe to be inevitable in the not distant future. The policy of systematic depopulation and massacre, followed some years ago in S. W. Africa, and now in Serbia, Armenia, and to some extent in France and Belgium; the wholesale and literal enslavement of Russian and other conquered populations; the determination of German industrialists to become possessed of the iron and coal of Belgium and Lorraine; the insistence upon huge indemnities; the actual promises to German financiers of land and other forms of wealth in Australia, now the personal possession of Australian citizens—all these things, wholly contrary to the accepted principles of present-day civilisation, are but a foretaste of the measures that they contemplate when the real crisis arrives. They all have the appearance of the direct result of a belief in the reality of this crisis, which, as we have seen, is almost inevitable on the purely materialistic conception of the universe. In the light of this conception and this forecast, the policy of co-operation, of live and let live, inevitably disappears, an otherwise stupid and wanton imperialism becomes intelligible, and the one essential is seen to be the seizure of crude physical power, so that when the time comes it shall be theirs to say who shall live and who shall die.

I believe that all imperialism and lust of dominion, based upon materialism as it must be, is more or less influenced by this feeling of panic, even when it is not consciously derived from it. At the bottom of it all is fear—the fear of being crowded, which leads to the securing of space by trampling upon others, and its goal is that awful isolation which is the only hell. We are beginning to realise its true horror only because the Germans have been strong enough and consistent

enough to put into practice the theories upon which it rests. We may thus understand their otherwise totally irrational and false belief that they were being "hemmed in" and that they were obliged to declare war in self-defence. It is the panic-fear of madness, but, like the delusions of the madman, it is essentially and exceedingly rational—only based upon false premises.

For, after all, this monstrous and relentless destiny which seems to threaten the human race is but a nightmare. It depends for its terrors, partly upon a materialistic conception of man's origin, but partly also upon ignorance of the cyclic law of human evolution. So long as we believe that man is a body, generated and produced by the interaction of other material bodies, the riddle remains insoluble. We have seen that there is no apparent reason in physical nature why human bodies should not go on multiplying until the means of subsistence fail. But while the materialistic conception makes any solution impossible, the failure to recognise reincarnation as a fact leads to an almost equally blank *impasse*. Thus Dean Inge, by no means a materialist, in a recent article in *The Edinburgh Review*, foresees the same almost inevitable catastrophe. His solution, evidently arrived at doubtfully and with much hesitation, practically resolves itself into a limitation of the birth-rate by a general adoption of artificial means, as the less of two evils. Not that he directly advocates this, but it is obvious that the legitimate practice of forethought and self-restraint alone is likely to be met with only among the most advanced people, and unless at the same time artificial means are adopted by the less advanced, the only result must be the gradual swamping of the best elements without any diminution of the general increase. Thence to the terrible nightmare of the extreme but logical measures of the materialistic Eugenist, is but a step. For in fact it makes little practical difference in considering this problem whether, with the extreme materialist, we suppose that the body makes whatever there be of

“soul,” or whether, with the conventional and traditional Christian theologian, we suppose that God is ready to create a new soul whenever it suits man to create a new body.

A solution, other than catastrophic, is, it would seem, only possible on the assumption that man's nature is spiritual and that his appearance on this earth is governed primarily by superphysical rather than by physical considerations, first among which is that the number of human beings is limited. The theory of reincarnation, as understood by Theosophists, provides a definite solution to the problem. If man be a spiritual being, then the governing condition of the production of children will be not merely the readiness of the parents to produce bodies, but the existence of a supply of egos requiring bodies; the conception of a child will depend no longer upon the act of the parents, but will require the co-operation of an ego desiring to be born of them. If, as we understand, the number of egos evolving on this earth is fixed, and only a limited proportion of these are incarnated at one time, it follows that any great increase of population, such as we have witnessed within the last two hundred years, must in the nature of things be followed by an equivalent reduction. This must hold good as a matter of arithmetic, whatever the causes of temporary increase or decrease may be, unless the average duration of life on earth is changed. Though there has been an average increase in longevity among civilised nations of late years, there has, within historical times, been no such general increase as to account for the increase in population, or to threaten congestion from that cause. We are assured that as a matter of fact the number of human egos is limited, and that “the door is shut” at the present time against the entry of any more from the animal kingdom. What we do not know is the actual number of egos, the actual mean period of incarnation, the actual maximum number which can at one time be incarnated, or the

probable length and intensity of any period of maximum incarnation. Both historical and clairvoyant investigations show that there have been great fluctuations, and it must be observed that the theory of reincarnation by no means conflicts with this fact. What it does is to negative the possibility of an indefinite increase, set a limit to the periodical fluctuations, and so obviate the *inevitability* of world-congestion.

Neither historical nor clairvoyant search has revealed any such period of world-congestion, though Dean Inge refers to an interesting tradition among the ancient Greeks that before the Trojan war (*i.e.*, possibly in the days of Atlantean civilisation) the world was too full of people. Certainly one gets from the accounts of occult investigators an impression that during the culminating period of Atlantis the population was very large, but hardly that it was congested, while during the early development of the Aryan sub-races the impression is that of scanty populations and vast, open tracts of country. One thing is certain, that during the periods covered by occult investigation, and even by ordinary history, the whole body of reincarnating egos has passed many times in and out of incarnation, and the phase of maximum incarnation must have occurred again and again. The absence of any mention of world-congestion in the past is therefore good evidence that the phase of maximum possible incarnation is not so extreme as to involve such a tragic event. It may be that at the present time the maximum has been already reached, and that the downward tendency of the birth-rate throughout Europe during the past forty years is connected with this. It may be also that the war will have permanent results, not so much by the direct loss of life, but by the extreme and universal hardships and loss of vitality suffered by whole populations, especially in Central Europe, and lasting probably for years to come, resulting in a permanent impairment of fertility among those nations, especially if the German war lords harden their hearts and compel the rest of the world to continue the " war

of attrition" to the bitter end. But if this should be so, we should realise that this would not be the *cause* but only the *method* of a reduction in the rate of increase.

Thus we may see how a knowledge of reincarnation might have saved the world from part, at any rate, of its present sufferings, for, as the *Bhagavad-Gītā* says :

Even a little of this knowledge protects from great fear.

What we have to guard against is the danger lest we on our side, when we realise the true meaning of the German aggression, should be seized with a like panic, and, when we have reduced their powers of destruction to entire impotence—as it is essential we should do—should in our turn be overcome by the lust of power and seek security in material self-aggrandisement. If, on the other hand, by our default the Germans should succeed in winning this war, they might indeed secure the power of death over the rest of the world, but they can never secure that of life for themselves. No effort, however ruthless and unscrupulous, can secure the permanent domination of their race. For it is beyond the power of Kaiser or Krupp to determine how many or what nature of men shall be born into German bodies. If a new race is needed in the world, all their efforts and successes will be vain, and the flower of the German nation will be reborn, not into German bodies, but among the descendants of those against whom they are fighting to-day, leaving, it may be, only the dregs of their own and other nations to continue the German name and tradition. So shall the nobler of our enemies of to-day become our brothers and fellow countrymen of to-morrow, while those among us who, in carrying on what ought to be a noble and self-sacrificing struggle, descend to the depths of greed and hatred, may reap their reward as the degenerate descendants of the ravishers and murderers whom they now despise.

W. Wybergh

## THE MECHANICAL MIND

By THEODORA MACGREGOR

THE word "mechanical" is here used to denote "automatic"—working like a machine—and mind is taken in a general sense, for short, to include the intellectual, moral, and emotional faculties of man.

The mechanical mind takes no account of anything that cannot be reduced to fixed rules, and laid out cut and dried. Exceptions must be brought into line, special circumstances are not considered, the motives behind any unusual act remain completely unfathomed, and any breach of conventionality is unsparingly denounced. This state is usually accompanied by a curious lack of co-ordination of ideas. For example, there is a capacity to entertain totally incompatible beliefs at the same time, where each can be referred to a different set of rules. What is still more extraordinary is that the owner of such a mind has one standard of conduct for himself, and a totally different one for other people. The more relentless he is towards the shortcomings of others, the more indulgent he is towards his own. He has no idea how clearly this can be seen by all who come in contact with him, and is equally unconscious in himself of any discrepancy.

People are inclined to condemn him categorically as a hypocrite, but he deceives himself first, and suffers from a real lack of capacity. He sees the world with himself as centre, and judges things to be good or evil according as they serve his convenience or advance his interests. Everybody tends

to do this to a certain extent, but he cannot for a moment do anything else, or conceive the possibility of it.

What then has happened to him? His mind has suffered an arrest of growth long before arriving at maturity, perhaps before adolescence. He goes through life with the physical body of an adult, but with the mind of a young child, except in so far as that of a real child is plastic or fluidic, while his is fixed. It is possible to suffer a partial arrest only; and a lop-sided development, showing deficiency in the intellect or in the feelings or in the moral nature, is deplorably prevalent among us to-day. These three aspects of the human mind cannot be separated, even arbitrarily for the sake of discussion. They so interpenetrate that the dwarfing of one part changes the nature of the activity of the whole.

Suppose the body of feeling in a man to be naturally very strong, the dwarfing of his moral nature will turn the feeling to a diseased craving for sympathy and sensation. He will be given to a cowardly habit of whining, and will use his intellect to invent hardships suffered by himself. He will be ready to slander away a reputation merely to satisfy his desire for sensation and for getting people to sympathise with him, and he will have an inveterate tendency to trifle with the affections of the opposite sex. With this condition of moral deficiency it is possible to find good intellectual power of a showy kind, and even a certain capacity for original work, but there can be no real depth. The wit will be of the nature of a cheap play on words, and will depend on form, not life. There will be fancy, but not imagination. This will be accompanied by irresponsibility and thorough-going lack of principle. There will be no ideals, and no scruples about stooping, no matter how low, to serve the immediate purpose. It will cost such a person nothing to tell any number of lies, and the lack of co-ordination will render him forever unable to realise their inevitable discovery.

Arrested development of feeling produces perversion and abnormality of sexual life, an impure outlook which is itself a plague capable of infecting the whole of society.

Where the intellect has been stunted, there is probably more consciousness of deficiency and more acute suffering than in other cases. The man cannot go through life without coming constantly face to face with ideas which he cannot grasp. He comes to have a nervous dread of them, and fears those people who possess any. If he be timid and cowardly he will flee from the latter, if bold and aggressive he will hate them and try to trample them under foot. Conscious of his own weakness, he has a constant suspicion that people are despising and criticising him. He is fond of copying the successful ideas of others, but he sees them by the results only, and, imitating appearances from the outside, he produces every time a hopeless travesty. Thus have been materialised the highest ideals of the past, and thus the life-work of the great teachers of humanity has been rendered of such comparatively slight avail. Atrophy of any part of the mind seems to cause periodic attacks of cerebral congestion, which appear either in fits of violent fury, or in depression sometimes bordering on melancholia, according to temperament.

The presence of the mechanical mind to any extent in a community is a most deadly thing, because it tends to perpetuate itself. Like the Gorgon's head, it petrifies in a greater or less degree all who come in contact with it. At the head of a school the harm it does can be imagined, and when in charge of children in any capacity and under any circumstances, it does a great deal of entirely irremediable evil.

The law of growth is one throughout all planes, and depends on pulsation or alternation of opposite conditions. Thus the world-process goes on by the swing between the opposite poles of summer and winter, day and night, sleeping and waking, life and death. Muscles develop by alternate

contraction and relaxation, and the mind by a rhythmical change from concentration to dissipation (in the literal sense). Too much of the one is as bad as too much of the other. The effects are dissimilar, but they are equally destructive.

Nothing is more marvellous than the strength and persistence of embodied life, than the thousand ways in which it can compensate itself, and adapt itself to untoward conditions, so that the loss is reduced to a minimum. Thus there is an incredible power of recovery from fatigue in children. But if in any case the strain is continued beyond a certain point, the child is never the same again. Over-fatigue, repeatedly incurred, lowers the whole tone of the organism, and takes away elasticity from those parts especially on which the pressure has principally fallen.

The plastic mind of a child becomes immobile by his being compelled to fix his attention too long on the same thing. Nature asserts itself by and by, and he makes an effort to change. Pressure is imposed, and he is forced to keep on as he was. If the springs of life are very strong in him he continues his efforts, and the ensuing struggle endangers the health of his moral nature and feelings as well, if he comes up against the mechanical mind.

Consider a few facts relating to English education to-day. Boys can be admitted to a secondary school from the age of eight to twelve or thirteen. No definite preparation or standard of attainments is required, so that they come at all stages. There is no definite classification, course, or scheme; and each class (taught *en masse*) can have a range of three years or so of difference in age without any objection on the part of the Board of Education.

The writer specifies a school where these conditions exist, yet it is held in high esteem by the Inspector, and extolled for its wonderful discipline and high moral tone. It is full to overflowing, and has always a waiting

list. Boys come to it from all parts of the country. Class order is here taken to mean that every boy sits speechless and motionless, every head in the same direction, every act is done according to rule, no allowance is made for natural capacity or want of it, for temperament, previous training, special circumstances. Every boy has the same hours of work and preparation, the same games, the same hours of sleep and the same food. He lives identically the same life, whether he be eight or sixteen. Some of the younger children can hardly read, and cannot possibly do two hours of preparation from books; still they are compelled to sit out the time without speaking a word. The writer has known some boys who had to sit still seven hours a day, while understanding very little of what was learned or taught from morning to night.

The average boy is not so unhappy as one would expect under such a regime. He gets into a lethargic state in which his faculties are in abeyance, or only awake in those classes where the terror is so great that he must unite all his energies to make a mental effort. When that is over he has "a fit of the jumps" for a while, and settles down again. What the ultimate effect on his character will be, is an entirely different question.

In such a school a boy's worth is judged strictly according to his value as an examination candidate. If he achieves brilliant results, he is a beacon which will draw other boys to the school. Most English parents prefer to send their children to boarding-schools, and seem to judge these schools by the number of passes. They are continually changing their children from one school to another. Boarding-school population is therefore extremely migratory, and if the headmaster is to be successful, he must move heaven and earth to please the parents, who to all appearances know and care nothing at all about education in itself. To judge by arrivals from a large

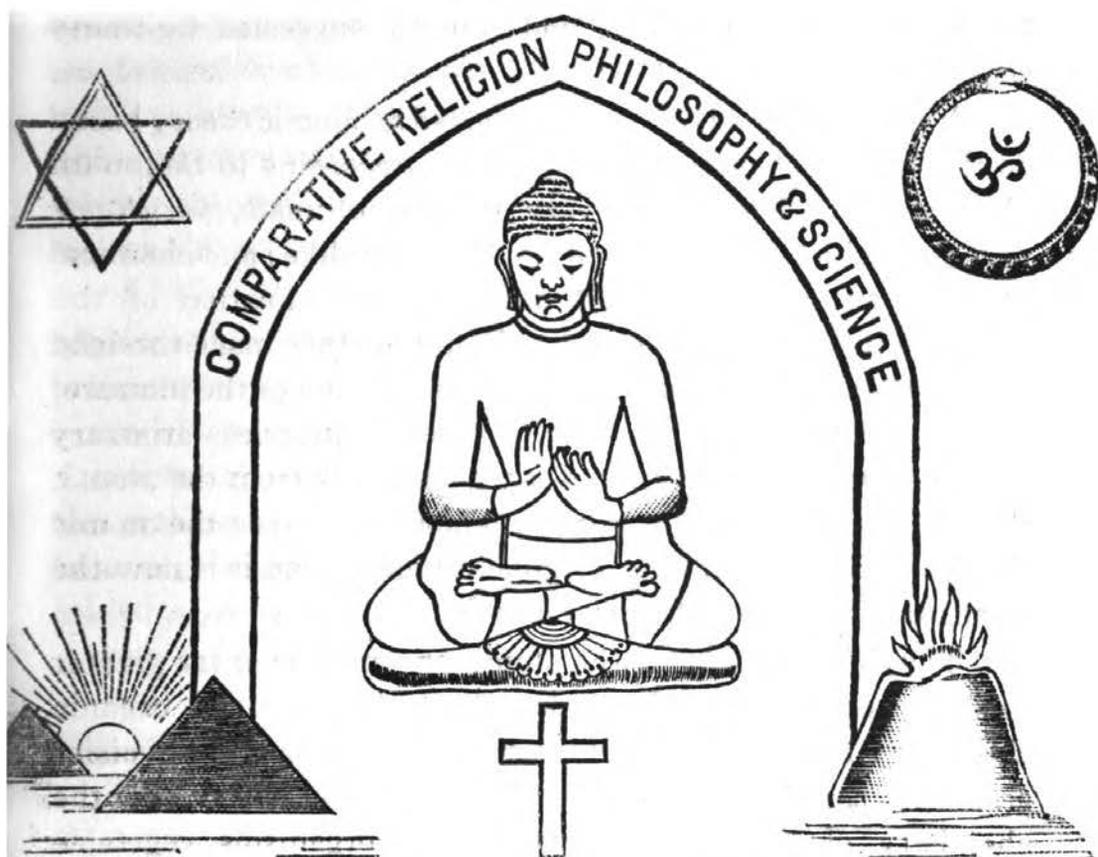
number of other schools, what is above described must be a very common state of matters.

Quite the most serious aspect of all this is the slightness of the reaction against it on the part of the boys themselves. Most of them are quite pleased. When they grow up, they will make no effort to prevent their children from being educated in the same way, and will feel no indignation about it. This shows that although content be present, it does not necessarily follow that all is well.

Similarly the lower classes, upon which the whole weight of society has rested for ages, have, by the undue pressure, suffered every kind of warping and crystallisation. In many thousands of cases children have inherited organisms of which the whole vitality is lowered, with minds dull, inelastic and slavish to begin with, so that with the utmost care and wisdom it will take generations to produce from their descendants beings reaching the full stature of humanity.

Theodora MacGregor

---



WHERE WE STAND IN SCIENCE AND  
HOW WE GOT THERE

By G. S. AGASHE, M.A., M.Sc.

*(Concluded from p. 263)*

**T**HE emphasis on the quantitative aspect of natural phenomena, laid in the whole work of Lavoisier towards the end of the eighteenth century, gave chemistry a very good start at the beginning of the nineteenth. The laws governing the quantities of elements which combine to produce compounds, were discovered within four years of the beginning of

the new century. Their interpretation pointed to a corpuscular or discontinuous structure of matter, a fact already indicated by the behaviour of gases, and actually suggested by many scientific thinkers.

It was Dalton who first promulgated an atomic theory based on the laws of chemical combination. According to Dalton an element is made up of very minute, ultimate, *uncuttable* particles, which he called atoms, all exactly alike ; and chemical combination consists in an intimate approximation of the atoms of the reacting elements. Dalton further made the bold proposal of finding out the relative weights of the atoms of different elements. This task involved numberless arbitrary assumptions, which estranged many chemists from the atomic theory for a time. But further knowledge freed the atomic theory from many of its original crudities, and it is now the most fundamental of chemical doctrines.

The introduction of the atomic theory was of far greater consequence in the development of the so-called organic chemistry than of mineral chemistry. In the days of Lavoisier and for some time afterwards, organic chemistry, or the chemistry of compounds derived from organisms, vegetable or animal, was in so chaotic a condition that the laws of chemical combination obtainable in inorganic chemistry, or the chemistry of minerals, were supposed to be inapplicable to them. Organic compounds consisted mostly of three or four elements—carbon, hydrogen, oxygen, nitrogen ; and out of these three or four elements such a wonderful variety of substances was formed as was quite unknown in the domain of inorganic chemistry. Even when organic substances were shown to be amenable to the same laws as mineral substances, it was still supposed that they could not be produced except through the intervention of a living organism. That was the reason why they were called “organic” substances. But this distinction too was soon found

to be illusory, when in 1828 Wohler succeeded in preparing urea, a typical animal product, from cyanic acid and ammonia, two compounds which were at that time held to be inorganic. Strictly speaking these two compounds too were indirectly of organic origin. But even this flaw was soon removed; and at the present day hundreds of substances to be met with in the world of life are prepared synthetically in the laboratory, any one of which can, if necessary, be prepared starting with purely mineral matter. The term "organic" applied to chemistry has not now the same significance as it once had, although it is retained as a matter of convenience.

From this it may appear at first sight that the first part of the problem of the origin of life, *viz.*, the production of complex organic substances from simple inorganic ones, has been solved. What happens in the laboratory can, it may be thought, happen in nature. But that is not so in reality. The chemist in his laboratory no doubt achieves this miracle. But it must be remembered that he has at his disposal a great variety of means—high or low pressure, high or low temperature, all kinds of reagents, powerful in action though simple in composition—which he can use at will in succession or combination as required. Laboratory methods imply not only a greater abundance of means, but also an intelligent use of them by a living, thinking being. Neither of these two conditions are *visibly* present in natural operations. So the problem of the first appearance of a complex compound of carbon, hydrogen, oxygen and nitrogen from simple mineral substances still awaits solution, and is even now under investigation.

But the organic chemist, unmindful of this difficulty as regards the first half of the problem of the origin of life, and encouraged by his phenomenal success in the synthesis of very complex compounds met with in animal or vegetable

tissues, confidently believes that he is within a measurable distance of synthesising life itself. He is all the more hopeful of success because the biologist, although always talking of living and of dead matter, is unable to give a very hard and fast definition of life, is unable to say what exactly it is that constitutes life. Name any criterion you please, and it can be shown to break down in some cases at least. Take, for example, the question of sensation. One thinks at first sight that this property is peculiar to plants and animals only. But Sir Jagadish Chandra Bose has proved experimentally that metals have sensation, and that they too can be poisoned and killed like plants or animals, and often with the very same materials. Here is one more example of the tendency of modern science already referred to, the tendency, namely, to erase boundary lines. There seems to be no fundamental distinction between living matter and dead matter. And yet, be it noted, we feel strongly that there must be difference, exactly as we feel that there is a real distinction between plants and animals, and that man is somehow different from other animals.

The same tendency to bridge seemingly impassable gaps, to turn differences of kind into differences of degree, is observable in the history of physics in the nineteenth century. The century began with three imponderables, the caloric, the electric fluid, and the light corpuscles, and ended with one—the ether of space; and the phenomena of heat, light, electricity and magnetism were all shown to be very closely related to each other and to the ether.

The process began with the revival of the wave theory of light by Thomas Young (1773-1829) in 1807. Evidence in its favour gathered apace; rectilinear propagation of light was satisfactorily explained by it; and by 1825 it met with general acceptance. It did not, however, become universal until after the successful performance of the most crucial experiment in

its favour. According to the emission theory the velocity of light is greater in an optically denser (*i.e.*, more refracting) medium, while according to the undulatory theory it is smaller. In 1850 Foucault was able to show experimentally that the actual velocity agreed with the requirements of the undulatory theory. After this experiment the wave theory was accepted even by the most faithful adherents of the corpuscular theory.

Young also spoke against the caloric theory of heat in his famous Lectures on Natural Philosophy in 1807, and pleaded for the then recently revived motion theory of heat. That sensible heat is due to the motion of small, invisible particles, was an idea already adumbrated by the seventeenth century scientists. Boyle actually experimented on the production of heat by mechanical motion, and illustrated the production of heat by arrested motion with such examples as a hammer driving a nail and becoming heated. Then followed the caloric period. But the old idea was revived in 1798 by Count Rumford, the founder of the Royal Institution of London. While engaged at Munich in the boring of cannon, he was surprised at the heat generated in the process. The source of heat produced by friction, he wrote, "appeared evidently to be inexhaustible". That showed that heat cannot be a material substance. Rumford concluded that in his experiments heat was produced by motion. What it was that moved and gave the sensation of heat was not quite clearly apprehended till the establishment in the fifties of the nineteenth century by Clausius and others of the Kinetic Theory of Gases, by means of which, considering gases to be made up of small, hard, smooth, elastic and motile spheres called the molecules, a mechanical explanation of the general behaviour of gases was given.

The connection between sensible motion and heat, or insensible motion of invisible molecules, being thus established, the next thing was to find the proportion between them. Rumford himself tried to calculate the quantitative relation

between mechanical work and heat; but his experiments were rather crude and his results inaccurate. Rumford's ideas were not accepted at once, and the caloric theory of heat prevailed till the forties, when the mechanical theory was revived by Mayer and Joule. The latter made a more accurate determination than Rumford's of what is called the mechanical equivalent of heat, *i.e.*, the quantitative relation between mechanical work spent and the heat produced thereby. A new term was introduced by Rankine to cover the two closely related phenomena of work and heat—the term “energy”. Joule's work brought him to the discovery in 1847 of one of the most fundamental principles of modern science—the principle of “the conservation of energy,” an expression also due to Rankine. But Joule was not alone in his discovery. Like many other great truths it burst on humanity through a number of independent channels. The principle was taught by Mayer, Colding, Joule and Helmholtz within a few months of each other without each other's knowledge. At first, only mechanical work and heat were contemplated in this principle; but later on light, electricity and magnetism were all shown to be so many different forms of energy. Chemical energy, which can be transformed into any of the other forms of energy, was the last to be brought under that category. And now the principle of the conservation of energy is understood in a much wider sense than it was at its first postulation.

The principle in its original, simpler form is known as the first Law of Thermodynamics, a science which had its origin in attempts to determine mathematically how much work can be got out of a steam engine. The foundations of the science were laid by the Frenchman, Carnot, in 1824. He was at first a calorist but later on inclined to the new theory of heat, and had a clear notion of what later on came to be known as the principle of the Conservation of Energy. “Motive power,” he wrote, “is in quantity invariable in nature; it is, correctly

speaking, never either produced or destroyed." The science of Thermodynamics has also given us another general law, which is in some ways far more interesting. This Second Law of Thermodynamics is enunciated in various ways. Perhaps the most easily intelligible statement of the law is that given by Lord Kelvin: "It is impossible by means of inanimate material agency to derive mechanical effect from any portion of matter by cooling it below the temperature of the coldest of surrounding objects"; in other words, although energy of sensible motion may always be completely transformed into heat, the reconversion of heat into mechanical work is never complete, and may even be impossible. This is an empirical law representing the result of universal experience. The use of the qualification "inanimate" before the term "agency" in Lord Kelvin's statement deserves to be noted in consideration of the fact that one of the several attempts to find out a criterion to distinguish living from non-living matter consists in showing that the Second Law of Thermodynamics breaks down in the case of living matter.

The Second Law tells us that heat cannot even partially be converted into work unless there are two bodies at different temperatures, from the hotter of which heat flows to the colder. The tendency of every operation that takes place in nature spontaneously, is thus to equalise the temperature of all objects in the universe. If this goes on for a sufficient length of time the universe must actually become isothermal (of the same temperature) in all its parts; and all possibility of work, life, progress, and all the high and low things which interest us now so deeply, may come to an end. Our universe may reach the state described by the Germans as "*Warmer Tod*"—warm death. There will be dead uniformity of temperature. The Second Law of Thermodynamics has thus a direct bearing on the question of the life of the Universe. Here too the innate tendency of the human mind towards immortality has elicited

several interesting attempts to show that somehow this law is got round, and our universe will go on for ever.

Thermodynamics raises another interesting philosophical question. From the second fundamental law of that science Lord Kelvin deduced an Absolute temperature scale, a scale independent of the nature of the material used in the thermometer. The zero of this scale is very nearly 273 degrees below the zero on the ordinary centigrade scale. It is impossible to cool any substance below that temperature; because at that point the insensible motion of the molecules which we perceive as heat is nil. The absolute zero has not yet been reached; the lowest temperature that has yet been reached is three degrees absolute. The achievement of the absolute zero is perhaps merely a question of time. It can be shown that matter at this temperature has no heat energy, *i.e.*, no energy in the form of molecular motion. Is it, however, quite certain that it has no energy whatsoever? And if it is not, is it possible to deplete matter of this energy? And if matter is so depleted of its energy in some way, what will be its condition? So far I have not come across any speculations along these lines.

Let us now turn to electricity. In the last section we brought down the story to the invention of Volta's pile. It was like a new toy put into the hands of the scientists (especially chemists), who in their insatiable curiosity are very much like children. The action of the electric current was tried on all sorts of substances with very fruitful results. Many substances, like caustic soda and caustic potash, that were hitherto supposed to be elements, were shown to be compounds. Results like these finally led chemists to the conviction that chemical affinity, in virtue of which all chemical combination takes place, was identical with electrical attraction, exactly as Newton's splendid work on gravitation once led them to conclude that chemical affinity was of the nature of gravitational attraction between infinitesimally small

particles. The electrical theory of chemical combination, however, has lasted in some form or other for over a century, and still persists. This theory in its turn reacted on the theory of the origin of the electric current, which was now supposed to be produced by the chemical action in the generating cell, and not by mere contact of dissimilar metals, as Volta had supposed.

That there was some very close connection between the two phenomena of electricity and magnetism, had been already suspected in the eighteenth century. But the first experimental proof of the fact was supplied in 1819 by what is known as Oersted's experiment. Oersted (1777-1851), in trying to place a magnetic needle parallel with the conducting wire of a strong galvanic battery, found that the needle made a great oscillation, and deviated in the contrary direction when the current was reversed. In 1831 Faraday (1791-1867) discovered the opposite effect; he found that currents can be produced in a close circuit by moving magnets near it, or by moving the circuit across a magnetic field. He followed up this discovery by finding that a current whose strength is changing may induce another current in a closed circuit near it. On these phenomena, grouped under the term electro-magnetic induction, are based the modern electric dynamos and many electric appliances.

Four years after these discoveries Faraday began the study of frictional electricity. He was dissatisfied by the theory of "action at a distance" accepted by most of his contemporaries to explain electrical attraction and repulsion, and created a symbolism of "lines of force" and "tubes of force" surrounding a charged body. Further he was led by speculation to believe that there was some direct relation between light on the one hand and electricity and magnetism on the other. He succeeded in obtaining experimental proof for this in 1845, when he found that when light is plane-polarised, *i.e.*, when

the vibrations causing the light-waves are taking place in one plane only, that plane is turned round through an angle, if the light is made to traverse a magnetic field.

Faraday lacked the mathematics required to bring these speculations to a proper consummation. It was supplied by Maxwell (1831-1879), who worked up Faraday's ideas into a magnificent theory—the electro-magnetic theory of light—according to which “the phenomena of electro-magnetism and the phenomena of light are all due to certain modes of motion in the ether, electric currents and magnets being due to streams and whirls or other bodily movements [this is a later addition to Maxwell's theory] in the substance of the ether, while light is due to vibrations to and fro in it”. Maxwell found few followers till the actual existence of electro-magnetic waves, which, though invisible to the eye, could be detected in other ways and had all the properties of the ordinary waves of light, was proved in 1888 by the brilliant experiments of Hertz (1857-1894). It is by means of these waves that wireless messages are sent. What then is the difference between the visible electro-magnetic waves we call light and these invisible waves produced by electric discharges? The difference is only that of wave-length, *i.e.*, the distance from crest to crest. Hertzian waves of several miles in wave-length are known; while the longest visible wave-length is 0.000076 centimetre. The shortest Hertzian waves that have been detected have a wave-length of about 0.3 cm. This big gap, however, is not wholly unfilled, as we shall see presently.

After Newton's work in the analysis of white light, the spectroscope came into use, and has proved one of the most fruitful of instruments. One of its firstfruits was the discovery in 1800 by Sir William Herschel (1738-1822) that there are rays beyond the red in the solar spectrum, which, although invisible, can make their presence felt by their heat effects, and that the bulk of the heat energy is brought

down to us from the sun not as such, *i.e.*, not in the form of molecular motion, but in the form of these undulations in ether which are too long to be perceived by the eye but which are absorbed by and produce motion in molecules of matter. This was not generally recognised, however, till the work of Melloni (1798-1854), who in 1843 said: "Light is merely a series of calorific indications sensible to the organs of sight, or vice versa, the radiations of obscure heat are veritable invisible radiations of light." The longest wave so far detected in this infra-red region of the solar spectrum is 0.003 cm. It is to be expected by analogy that the solar spectrum also extends on the other side, the violet side. This was proved by Ritter, and independently by Wollaston, soon after Herschel's discovery of the infra-red waves. The ultra-violet rays are noted for their chemical effects, as the infra-red ones for their heat effects. The shortest ultra-violet waves so far detected have the wave-length .0000042 cm.

The spectroscope proved extremely useful in the chemical laboratory for the detection of elements, after it had been discovered that the incandescent vapour of each element gives a characteristic spectrum.<sup>1</sup> The discovery was made as early as 1827 by J. W. F. Herschel; but it was not put to any practical use, and its significance was not understood until the work of Bunsen and Kirchhoff in 1859. Many new elements were discovered by means of the Spectroscope. Kirchhoff also gave an elegant explanation of certain dark lines in the solar spectrum, which had been first (1802) observed by Wollaston and then afterwards (1817) independently by Fraunhofer, after whom they are named. He showed "that a coloured flame, the spectrum of which contains bright, sharp lines, so weakens rays of the colour of these lines, when they

<sup>1</sup> It may be of interest to Indian readers to know that the following statement occurs in *Rasārṇava*, a book on Hindū Chemistry (circa A.D. 1200): "Copper yields a blue flame . . . that of the tin is pigeon-coloured; that of the lead is pale-tinted . . . that of the iron is tawny" . . . etc.

pass through it, that dark lines appear in place of the bright lines as soon as there is placed behind the flame a light of sufficient intensity, in which the lines are otherwise absent ; . . . that the dark lines of the solar spectrum, which are not caused by the terrestrial atmosphere, arise from the presence in the glowing solar atmosphere of those substances which in a flame produce bright lines in the same positions". This explanation was epoch-making in the history of astronomy, for it made possible the study of the chemical composition of heavenly bodies. The suggestion conveyed in Kirchhoff's explanation was readily taken up, and gave rise to the science of astrophysics. It was found that stars are made up of practically the same elements as our earth; but the hotter stars contain only the lighter elements, while the colder stars contain metallic elements and carbon as well. As evolution was in the air after 1859, this observation resuscitated the question of the evolution of the different elements from one primordial substance, an idea first raised in modern times by Prout (1815), who, basing his argument on the fact that many of the atomic weights current in his time were very nearly integral numbers, suggested that probably they were all integral multiples of the atomic weight of hydrogen, which was unity. That there was some such genetic connection between the different elements, was rendered probable also by the periodicity which the elements show in all their properties, when arranged in order of their atomic weights. The spectroscopic investigation of the stars also raised the question of the evolution of the stars themselves. No universally accepted conclusions have, however, been arrived at in this respect. One of the chief difficulties in the way is that the interpretation of a spectrum is shown by further experience to be a far more difficult operation than it was at first thought to be.

The other use to which the spectroscope has been put in astronomy is to find out the motion of stars to or from us in

the line of sight, by taking advantage of what is known as the Doppler Principle. In 1842 Doppler pointed out that as the pitch of a sound or the colour of a light depends upon the number of waves striking the ear or the eye, and as, further, this number is increased by approach and lowered by recession, the pitch of a sounding body or the colour of a luminous body must change as the body moves towards or away from the observer. In 1845 Buys-Ballot verified this theory as to sound by experiments on railway trains. If a whistling locomotive passes through a station, to the ear of a man on the platform, the pitch of the whistle rises as the engine approaches and falls as it recedes. Similar effects, Doppler argued, must be noticeable in the case of light. This principle was first applied in astronomy by Huggins in 1868.

The other means of calculating the proper motion of the so-called "fixed stars" is to note any permanent change in their relative positions. The net result of all the research in this line is summarised in the following conclusion about the structure of the universe :

First, it is believed that the great mass of the stars, excluding the Milky Way, are arranged in the form of a lens or a bun-shaped system. Our sun occupies a nearly central position, or at least a position midway between the two flattened surfaces. The thickness of this system, though enormous when compared with ordinary units, is not so great but that our telescopes easily detect the absence of stars beyond. We cannot specify the thickness definitely, because there is no definite boundary, but only a gradual thinning out in the number of stars. The plane of the lens-shaped system is the same as the plane of the Milky Way, so that when we look towards the galactic poles, we are looking towards the parts where the boundary is nearest to us ; looking along the galactic plane, we are looking towards the perimeter of the lens, where the boundary (or thinning out of the stars) is most remote, though probably not beyond the penetrating power of our telescopes.

It is further believed that the solar system is travelling in space to the constellation Lyra with a velocity of somewhere about eight miles a second.

As regards the origin and formation of the solar system, there are three principal hypotheses in the field. One is the

well known century-old Nebular Hypothesis, which traces the formation of a solar system from a vast, revolving mass of extremely tenuous matter which, revolving like a rigid body, became periodically unstable and threw off rings, each of which subsequently condensed into a planet. The second is the Meteoric Hypothesis of Lockyer, according to which the primeval nebula was not gaseous but consisted of meteors. The third is the Planetesimal Hypothesis put forward by Chamberlin and Moulton. According to this last, our sun was at one time without any attendant worlds; then another sun passed extremely near it, but without colliding. They tore great quantities of matter off each other, and the matter thus torn off remained revolving in ellipses, and by a gradual accretion of particles (planetesimals) round several nuclei, gave rise to the planets.

### THE TWENTIETH CENTURY

Most of the progress of science described above was achieved before the end of the nineteenth century. The last four or five years of that century saw the coming into science of two new phenomena of a more or less revolutionary character, one in the domain of biological sciences and the other in that of the physical sciences.

Certain laws about heredity, which were arrived at by Mendel, as a result of his experiments in breeding, as early as 1866, but which long remained quite unknown, were brought to light in 1900 by the Dutch botanist De Vries. The publication of Mendel's work and his conclusion led to an enormous amount of experimental work in evolution, which tells strongly against Darwin's conception of the formation of new species from old ones by the gradual accumulation of small variations. Mendelism supports the discontinuous theory of evolution.

The revolution in the physical sciences was brought about by the discovery of radioactive phenomena, which among other things familiarised the scientists with particles which are smaller than atoms, and of which the atoms are probably made up. Such particles were known for quite a long time before the discovery of radioactive phenomena. It was as early as 1869 that Hittorf discovered the so-called cathode rays, which consist of streams of particles issuing from the negative electrode of a highly evacuated tube through which an electric current is being conducted. Crookes, who studied them very carefully, regarded them as matter in an ultra-gaseous state. This was confirmed by Thomson, who even measured their mass. It is the flow of these corpuscles in conductors that constitutes an electric current according to modern conceptions. In 1895 Röntgen obtained another kind of rays from a tube in which cathode rays were issuing. Röntgen called these X-rays, and showed that they came from the place where the cathode rays struck the glass of the exhausted tube. It was clear that these rays were of an entirely different character from the cathode rays, and were probably of the nature of ether waves. They resembled visible and ultra-violet rays (which are also of the nature of ether-waves), in being able to affect a photographic plate, but differed from them in being able to penetrate many substances opaque to them. Röntgen thought that these rays were produced by longitudinal (*i.e.*, to and fro in the direction of propagation) vibrations in the ether, unlike the light rays, which were caused by transverse (*i.e.*, up and down at right angles to the direction of propagation) vibrations. Stokes, however, was of opinion that the Röntgen rays or X-rays are nothing but a succession of independent pulses sent out in an irregular manner by the impact of the cathode rays on the glass molecules.

That X-rays and light-rays are of the same nature is a conclusion now almost universally adopted; but recently

there has been the recrudescence of the old eighteenth century fight about the nature of light. This was due to the study of radioactive phenomena, which were first discovered by Becquerel in 1896. Becquerel observed that uranium and its compounds normally emitted certain invisible rays resembling X-rays. In 1898 radioactivity was noticed by Schmidt in the compounds of thorium. This property obviously belonged to the elements uranium and thorium. When a number of uranium minerals were examined as to their radioactivity, they showed considerable differences, and pointed to the existence in those minerals of something more radioactive than uranium. M. and Mme. Curie isolated this something in the form of the chloride of a new metallic element, which was named radium. Many other radioactive elements were later on discovered.

The radiation of radioactive elements was shown to consist of one or more of three kinds—*alpha*-rays, *beta*-rays and *gamma*-rays. The *alpha*-radiation has now been shown to consist of helium atoms with two positive electrical charges. The *beta*-ray is the same as the cathode ray, an ultra-gaseous particle, carrying a unit charge of negative electricity. The *gamma*-rays are believed to be of the nature of X-rays.<sup>1</sup> It was found that the temperature of a radium compound is always higher (like that of some living organisms) than the surroundings, because radium continually gives off enormous quantities of heat. What is the source of this energy? Rutherford and Soddy suggested that the energy was due to the breaking up of a radium atom and its change into another kind of atom. This explanation is now universally accepted. It is believed that each species of atom has a certain definite life period, which may vary from a few minutes to millions of years, at the end of which it disintegrates and forms some other kind of atom, giving out in the process heat and *alpha*-, *beta*- or *gamma*-radiation.

<sup>1</sup> According to the latest measurements, the longest X-ray has a wave-length of '000,000,12 cm., and the shortest *gamma* ray one of '000,000,000,1 cm.

The most direct result of the discovery of radioactivity is to turn upside down all our old ideas of the nature of an element and the nature of an atom. So far an atom was hypothetical and possibly purely subjective, but permanent; now it became objective but evanescent. Far from being an ultimate, uncuttable particle, it is shown to be a highly complex mechanism. It is believed that an atom is made up of a nucleus, carrying a positive electrical charge, surrounded by a number of electrons (as the *beta*-particles are called at the suggestion of Stoney) sufficient to neutralise that positive charge. The number of these electrons is equal to the number which the element takes in an arrangement of all the elements in order of increasing atomic weights. The electrons, the mass of each one of which is about 1/1700 of that of the hydrogen atom, contribute little to the weight of the atom, which is almost wholly due to the central positive nucleus. The electrons arrange themselves in concentric shells, the outermost of which determines almost exclusively the chemical properties of the atom. So it becomes possible to have two atoms of different atomic weights but the same chemical properties. Such cases have been found; and such atoms are called *isotopes*. All atoms being thus modelled on the same plan and built of the same materials, the question of the transmutation of elements naturally crops up. The radioactive transformations are not under our control; and as regards transmutation at will by means of radio-agencies, some evidence has been brought forward, but it cannot be said to be quite unimpeachable. The possibility of transmutation, however, is certainly opened up.

Besides these direct results many indirect results have followed from the study of radioactive phenomena. Rutherford raised the question as to whether radium was not present in the sun and whether a part of solar heat might not be due to its presence. There is no direct

evidence on the point; but the presence of helium, which is known to be produced by the disintegration of radium, lends colour to that suggestion. Rutherford also pointed out that the discovery of radioactivity necessitated a revision of the estimates of the age of the earth made by Kelvin and others in the last century—estimates which caused a rather sharp controversy between the physicists led by Kelvin and the biologists led by Huxley; the contention of Huxley and others being that the physicists' estimates of the earth's age left no adequate room for the whole biological evolution from protozoon to man. But how far wrong the old estimates are, it has not yet been found possible to determine. Further, the study of these phenomena has thrown some doubt on the electro-magnetic theory of light-rays and of X-rays. There seem to be two camps among physicists. Every one recognises that light-rays and X-rays are of the same nature. According to the orthodox camp X-rays are simply electro-magnetic impulses of very short wave-lengths (ranging between 0·000,000,84cm. to 0·000,000,056 cm.)—wave-lengths far shorter than the shortest detected in the solar spectrum, *viz.*, 0·000,01 cm. But some facts have recently been discovered in connection both with light-rays and X-rays, which cannot be explained on Maxwell's theory. A corpuscular theory has been proposed by Einstein and others to explain these. But the corpuscular theory is unable to explain certain other phenomena, which are easy to understand on the wave theory. The old fight is being fought anew, and we await the issue with the keenest interest.

### CONCLUSION

Such is the story of science through the centuries. At the present moment science stands in an altogether interesting

situation. Its conclusions on all the fundamental questions it is expected to solve, are very striking and very much alike. Science proves continuity between the living and the non-living, the plant and the animal, the animal and the human being. It cannot, however, say that there is no difference between them; neither can it say what the difference is. There are already some bold thinkers among scientists who contend that the continuity applies merely to the physical vehicle, but not to the informing principle, whatever its nature may be. They are willing to postulate the influx of a subtle force at each one of these transition points. The force must naturally be supposed to come from some invisible world, and go back to it. The existence of matter to which our present senses cannot respond is made more than probable, not only by the investigations of the Psychical Research Society, but also by the purely physical investigations of physicists and chemists. In a lecture delivered in 1907, Sir J. J. Thomson remarks that the study of certain problems brought before us by recent investigations

leads us to the conclusion that ordinary material systems must be connected with invisible systems, which possess mass whenever the material systems contain electrical charges. If we regard all matter as satisfying this condition, we are led to the conclusion that the invisible universe—the ether—is to a large extent the workshop of the material universe, and that the phenomena of nature, as we see them, are fabrics woven in the looms of this unseen universe.

The investigations of the physicist have brought him to the verge of the invisible; and experimentation is becoming increasingly difficult. And we find the same distinguished physicist confessing in another lecture, delivered seven years later, to have often felt, while investigating the structure of the atom, "what a boon it would have been if we had an eye which would enable us to have a good look at an atom and have done with it". There goes the cry of the wearied scientist for a new sense-organ, because he has reached the

limit of those that he already has. Who can say that a new sense will not develop in response to this cry? Who knows that a fresh impulse in the direction of the invisible, for which science is ripe, may not be given to it by the great Teacher whom many sensible people in the world of to-day expect in our midst before long?

G. S. Agashe

---

## TO FREEDOM

### IN MEMORY OF HER MARTYRS

LAMP of the world! Set high in perilous places  
 Storms can extinguish not nor tempests darken.  
 Thou Light of Freedom! Men must turn their faces  
 Some day to thee, and call, and thou wilt hearken.

Lamp of the world! Men have misused thy brightness,  
 Blinding weak brethren with its naked beams.  
 Forgive them! In thine own austere uprightness  
 Thou know'st men stumble, blindfold, in their dreams.

Lamp of the world! Who serve thee never falter,  
 Feeding thy radiance with each watch-fire star,  
 Dying, to prove allegiance cannot alter,  
 Falling from our world, rise to worlds afar.

LILY NIGHTINGALE

---

# A STUDY IN THE PHILOSOPHY OF HINDŪ UNITARIANISM

By L. C. BURMAN, D.Sc.

UNLIKE other philosophies of the world, the Hindū Unitarian Philosophy holds its own in respect of utility, reason, farsightedness, universal brotherhood, patriotism, love of humanity and devotion to the Deity. It was revived by the sage, Shaṅkarāchārya, but not founded by him, as is commonly believed by those who have acquired a superficial knowledge of this philosophy through the medium of imperfect translations and notes. It forms a part of the Hindū revelation known as the Vedas.

If there is any philosophy under the blue skies that discloses the secrets of the Spirit, in which activities in all departments of human life should be conducted, it is this school of philosophy. The following are its main doctrines :

(a) The whole universe, including the organic and the inorganic life, is a changeable mode or manifestation of the One Supersensuous Consciousness commonly known as Brahman, the One Fundamental, the only Primary or the Absolute.

(b) That which we can see, hear, smell, touch and feel, is a varied expression of the same Consciousness, which is beyond time and place—call it non-relative or absolute or what one may like.

(c) The world being a manifestation of consciousness, there is nothing that is not conscious. Non-sentient existence is a downright fiction.

(d) Existence is an expression of consciousness in degrees. A stone exists; it is an expression of consciousness in the lowest degree. Its very existence demonstrates that it is conscious, else it would never have existed at all.

(e) The higher the expression of consciousness, the more the object is conscious and the more pure and good it is.

(f) The highest expression of consciousness is God; the lowest, a stone.

(g) Personal consciousness, personal identity, is consciousness individualised. Universal consciousness is consciousness unified.

(h) Realisation of personal consciousness is a step towards the realisation of universal consciousness, which is mokṣha, liberation, the end and aim of existence.

(i) The consciousness is tripartite, *viz.*, Saṭ, Chiṭ and Ānand—Eternal Existence, Thought-power and Bliss.

(j) Māyā, nature, is an expression of consciousness, which also possesses a trinity of attributes—Rajaḥ, Ṭamaḥ and Saṭṭvaṁ—Activity, Inertia and Equilibrium.

(k) Saṭṭvapradhān Māyā, Nature with a predominance of equilibrium, is Īshwara, God; Ṭamaḥpradhān Māyā, Nature with much of Ṭamaḥ, is Jīvā, the Soul.

(l) Anṭaḥkaraṇ (moral nature of Jīvā), senses and organs, ṭanmāṭras, the originals of matter, and matter, are all various modes of the one fundamental Brahman, the One, the All. These are always changeable, while Brahman, the only infinite fundamental, remains unchanged.

As will appear from the above, matter has no existence independent of the Universal Consciousness, the Absolute, the Infinite. Every idea is made up of two component elements: अहं (subject) and अदम् (object); the former representing the eternal fountain of knowledge, and the latter, the creation, the world outside.

When the All-pervading Eternal Consciousness shines forth through *anāḥkaraṇ* (the moral nature of man) and its component the subject, the ego or the personal consciousness is enabled to see the object (*दृश्य*), the world. When it does not, the personal consciousness remains unconscious. It is now clear that personal consciousness and creation are the changeable effects of the unchangeable Prime Cause, the Ultimate Knowledge.

The knowledge of the ego is invariably linked to the knowledge of the object, and where there is the perceiver, there is the perceived and the perception. The Universal Consciousness exists independently of this triad; it survives the personal consciousness and creation. It is ignorance alone which leads us to value the subject and the object, but when we shake off this ignorance, the Ultimate and the All-pervading entity shines forth in its unspecialised way. So long as we are influenced by ignorance, individualised expression is inevitable; but when ignorance departs, there remains nothing to screen the Higher Ego, which then shines forth in a diffused and general manner. It is then that the ultimate happiness and the aim of existence are obtained.

The absorption or the merging of the triad—perceiver, perceived and the perception—allows a latitude of freedom to the Universal Consciousness, which continues independently on a permanent basis, even when its reflection, the subject and the object, are vanished. The perceiving faculty, the perceived and the perception have therefore a temporary existence, and their comparative reality is a fiction.

From the above review, it is clear that all existence, whether sensuous or supersensuous, is a mutable expression of the one immutable fundamental, the Universal Consciousness, Brahman. This is the widest outlook of life on earth. When one understands this, all Philosophy, Science and Religion become easy and uniform, all being the

branches of the one tree of the knowledge of Brahman. The Vedāntin does not countenance exclusive treatment. He is a mixture of protection, statesmanship, politics, devotion and philosophy. He is a strong defender of brotherhood and an apostle of what is good and pure. He thinks he lives for all, and all live for him.

Shrī Shaṅkarāchārya and his followers were of such a type. The sage discussed not only religious and theological questions, but also dealt with all phases of life that can be exploited. He not only stood for one school of thought and for one sect, but for all and for the truth. He was a Ṛshi of much higher ideals than those of which he is supposed to be an exclusive exponent.

Unfortunately Indian history is wanting in those records which alone can elevate human kind. The average Indian much depends upon foreign writers and translators. His greatest handicap is the want of due encouragement from his countrymen, who have now a hankering after the agnostic philosophy in consonance with the spirit of the age, which is daily bringing with it newer philosophies and newer thoughts. Naturally enough the latter require scrutiny and immense expenditure of time, and conclusively cannot bear comparison.

We look for that which we already have, but do not know where it is. We do not know the excellences of our own inheritance, a possession upon which our predecessors much depended. We discard the old things to welcome the new ones. But it is remarkable how a structure can be built without a proper foundation. We have a past to stand upon, but still we ignore it. This is analogous to the view of a man who tries to build a house without thinking of laying a foundation first. We now live in an era which demands that we should also be proud of our old possessions. Fortunately we are heirs to a philosophy that enjoins love of all and hatred of none.

Upon this we should pride ourselves, and upon this again we should stand.

Seeing that the aim of all philosophy is to remove as much suffering as possible from the world, and that this suffering is always due to an undue attachment to the unrealities of life, it becomes of paramount importance to care more for the Universal and Eternal than for the personal and temporary, if real freedom is at all desired. A marked breadth of vision, an intelligent width of scope, undaunted readiness to suffer for others, willingness to co-operate and a sincere desire for freedom, are the signs which distinguish a man on the Path from the one who is side-tracked and who consequently remains grovelling in darkness. Where these signs are visible, there the true philosophy has been well understood and faithfully acted up to.

Old India had men in whom these signs were prominently marked—men who regarded it as a privilege and glory to live for others. The charge that is sometimes laid at their door—of their life of exclusive metaphysical speculations—becomes a total failure when it meets history.

India's glory now depends to a considerable degree upon the revival of her Vedānta philosophy in its practical aspects. It is fortunate that after a long stupor her sons are now beginning to awake. The awakening has now called for a search as to where her precious things lie. When this search is over, new India is sure to enjoy what she did in her grand old days, and to find out her precious philosophy, which has so long been hidden under extramural culture—a spirit of service to man which will not only prove of incalculable good to her children but which is destined also to be of much use to the people of other lands.

L. C. Burman

---

## SONGS OF THE DAY-FALL

### DUSK

THE bird of daylight folds her yellow wings  
Behind the violet-shadowed hills afar.  
From heights of peace, some secret poet flings  
On dusky streams, the poem of a star.

The sky, the silence and the dusk are mine. . . .  
For they are Thine, and Thou art mine in love!  
Ah God! my heart is turning crystalline  
Seeing Thee play at crystal stars above. . . .

Deep in my soul, the voice of beauty lulls  
My white-flame heart and earth-enchanted eyes.  
Thro' the dim-purpled dusk, my listening pulse  
Throbs to the music of the dreaming skies.

### NIGHT

God plays upon the heart-strings of the dark  
To lull the cry of birds and hills and streams;  
His magic fingers weave each starry spark  
Into my sapphire dreams.

Out of the vast of night, a vision starts  
Haunting my anguish with a touch of flame. . . .  
Like a rich Flower unfolds the Heart of hearts  
The petals of my name.

The stars are white because His thoughts are white.  
Like them, they are, in deeps of darkness born. . . .  
Ah God! I seek the message of the night  
And find the gold of morn.

HARINDRANATH CHATTOPADHYAY

---



## NON-PHYSICAL BEINGS

A TALK WITH A CLASS

XII

By ANNIE BESANT

*(Concluded from p. 175)*

**T**HEN we come to the next class, the Māra Rūpas, those who are doomed to death. These are the beings which include the "dwellers on the threshold" that H. P. Blavatsky has spoken of, and that you will find mentioned in Bulwer Lytton's book, *Zanoni*. These belong to particular persons,

being their own cast-off astral bodies, vivified in the way now to be mentioned, and especially attracted to their former owners, as individuals, after they have reincarnated. In addition to these, the class includes all those whom H. P. Blavatsky called "souless people," people who are on the downgrade, because the kāmīc body is so vitalised by the dragging away of the life which belongs to the lower part of the mental plane, this life has been so united with the molecular and atomic life in the astral bodies, that it is drawn downwards ; that is, part of the third life-wave is diverted and blended with the second life-wave. That will be the best way to think of it for the moment. Think of the third life-wave which gives man his individuality, and then think of the second life-wave which is the formative power in the building of bodies, and is essentially the life of the forms. That is a less-developed form of life than is the third life-wave. Imagine that the third life-wave, which is animating the individual, has part of itself diverted and blended with the second ; that is, that the life of the consciousness is blended with the life of the form. Remember that in that blending there is no obstacle, because they are both waves of the Divine Life ; it is just like two streams of water coming together, and they mix as one stream. So with these two waves, which are both waves of the Divine Life, one more highly evolved for creative purposes than the other. If part of the higher is dragged away and blended with the lower, it lends to that lower life an enormously increased power.

So you have these forms and the imprisoned life of a now really sub-human being reincarnating, but on the downward path, each reincarnation being of a lower and lower type until it reaches the animal type, and so passes down, to be ultimately broken up, and re-used. These are what were called, in some of our earlier literature, the "three-principled," because the kāma-mānasic form comes in there. Some of the mind has

been dragged away, and hence the increased vitality and the increased persistence. This marks off a distinct class which, like the "ghosts," sometimes come to the séance room, and show distinct malignity. The Māra Rūpa is a far more intelligent being than the ghost, far more anxious to get hold of any available people, so as to feed upon them and intensify his life, which is always a fading quantity, which is always decreasing; so that you might imagine him as in a condition of perpetual hunger, always trying to get new nourishment, and hence he frequents those spiritualistic séances which have not been carefully guarded so as to shut out these lower beings.

We come next to the class that used to be called elementals; the class which in our later books we called elementaries—those with human forms. Those are a class which, if they are conscious on the astral plane, must be either of a very low type, or of a comparatively high one. The reason is this: if they are conscious in the astral body after death, it is usually because they are using its coarsest matter, and they are a very low type of human being—the savage, the murderer, the profligate, the drunkard—all those who strengthen the animal nature during their life-period on earth. All of those will be in human forms; and those on the whole are they who are injured most if they are brought into touch with a medium. They want to remain in touch with the world because the whole of their desires are turned that way.

I think I told you once of a very unpleasant case that had occurred in Paris to a doctor, who told me of it. ☹ He belonged to a little group of investigators who very rashly made arrangements with the French police department to hand over to them the bodies of criminals who had been guillotined. What they wanted was to find out whether it was possible to revive a person who had been guillotined. The plan was to replace the head immediately on the severed neck, so that the

great blood-vessels were put together again before much time had elapsed ; it was done by a special arrangement with the police. It has been found possible to get some signs of life in such a body by electric means ; they succeeded in getting such a corpse to open its eyes, and to turn them in the direction of a person who spoke. Life did not remain, but they succeeded in getting such a brief revival.

The special point of which I wish to remind you is that they also carried on spiritualistic experiments in the room adjacent to the operating theatre, where these experiments on guillotined persons took place. On one occasion (which finished the séances there) a guillotined man turned up in his etheric double and astral body, and took possession of the medium, and a very severe fight took place between him and these unfortunate people ; they escaped from the place, but this creature followed them down to the cab and tried to upset it—a very terrifying experience. That was a case showing the danger of a séance when carried on by people who do not know what they are doing ; they were experimenters and materialists, and not Occultists, and so they knew no way of guarding themselves from danger. There is that kind of danger also from others who have lately left the human physical body, and who are carrying on their life on the very lowest sub-planes of the astral.

It is a little perplexing to decide just what to include in the term, “Asuras,” when it is made to relate to astral world beings. In our later literature we have spoken of “Asuras ” who came from one of the earlier planets and reincarnated here, beings of a very high condition of mentality and slight emotional development. They might be defined as astral beings having the forms of future men—on the way to human incarnation on this globe ; that is their mark. Another class of astral beings are animal astral forms who are on the way upwards. Those are now extremely rare, so far as incarnation in our humanity is

concerned, but there are a few who will be human beings on this globe. Individualised animals pass into the astral world, but go onwards into the mental, where they sleep, awaiting a world where human forms at a low stage of evolution are available. Animal elementals are very numerous in the astral, so far as the whole group is concerned of what are called animal *ḍevas*, or “*kāma ḍevas*,” by the Hindūs—the *ḍevas* of desire, who guide the animal kingdom.

These we usually speak of as “nature spirits,” concerned with the animal kingdom, with the shaping and guiding of evolution among all the animals except the ants, birds, and one or two other classes who are on a separate line altogether. They are very interesting beings, moved, so far as their evolutionary work is concerned, by this impulsion which is embodied in them and which they cannot resist. They are apt to have a considerable amount of somewhat undefined intelligence; and by that I mean that it is not precise and accurate. For example, we are always thinking by differences; the moment you analyse your thought you will find that it is a process of noticing differences—you say: “It is not this, but it is that; A is not B,” and so on. You are continually looking at the way in which a thing differs from other things, and your thought is a process of distinctions.

Now that is curiously absent in these *kāma ḍevas*. They see things more in groups by likenesses, and they do not distinguish differences in the same fashion. Their only way of looking at the world is to see the world in groups, groups of particular animals, groups of particular plants, groups of particular minerals, and so on. Everything is to them a general class, and the interdivisions of the class into smaller classes and individuals they do not seem to observe. They distinguish clearly between things that are hostile to their own group and things that are friendly. For instance, those who have to do with certain

types of the various living creatures would distinguish between that group which is in their charge and the group of higher animals that prey upon them ; they would distinguish between, for instance, the rabbits whose class is looked after by certain kâma devas, and the weasel, the stoat, and other animals that live upon their particular charges, and are under other kâma devas.

Further, they have the limited amount of intelligence which would make them colour their creatures so as to avoid danger from those other classes. Suppose you take in the Arctic regions the animals of a certain class ; you find that they become white in the time of snow, so that in running over the snow they may not stand out prominently to be seen by any enemy that might be about.

The protective colours and markings of all these creatures is one of the things that have been investigated to a considerable extent, as you will observe in some of the books on evolution, and those books are full of the most interesting cases of adaptation. The work of these devas is illuminative, because they explain, in a way which the ordinary book does not, the inner impulse which shapes the outer mechanism of the changes. You will find this especially so in the case of the adaptations which nature provides in the matter of the relations between the flower and the insect that is intended to fertilise it ; both the proboscis of the insect and the protective sheath of the flower will become modified in consequence.

The whole of such changes, when they are regarded as purely mechanical, imply enormous ranges of time, because the changes are so exceedingly minute. But if you realise that behind these changes there is a little steady impulse going on, a little pressure, you then have exactly what seems to be lacking in the Darwinian theory. It is these kâma devas which are pushing and pulling through the lower kingdoms, and so helping evolution on.

You will find the same thing with the National devas. Although the great National Deva at the head of a Nation is of course of lofty intelligence, and is co-operating always with the Plan, that is not the case with the lower devas who belong to that same Nation. You will find them fighting on different sides in a battle-field. You will find the particular set of the lower German devas are fighting as much as they can with the Germans, while those on the side of the Allies are fighting on their side. That is going on all the time, and it is interesting to notice that as the intelligence grows in the higher and higher grades of these, more and more co-operation with the great Plan comes in, until you come to the highest National Deva, who is simply one of the lofty Intelligences working with the Hierarchy, working in perfect consciousness and deliberation into that Plan.

That principle was illustrated very clearly in the Russo-Japanese War, as preparing Russia for the part she is now playing and will play. The humiliation and defeat which she underwent were thoroughly acquiesced in by the Russian National Deva, who guided the people in that way for the sake of teaching them a lesson and preparing them for the present part and for the future part which Russia will play in the coming evolution of Europe. There you get the conscious, deliberate working of the forces into the Plan.

In these lower stages, however, you find these devas quarrelling away as vividly as the people in physical forms are doing, just as the National heroes on both sides turn up and fight for their own people.

Another distinct class of astral beings are the Rākshasas, the astral forms of sorcerers. They are of very high mentality, but mentality of the rūpa sub-planes. Where the knowledge of the unity has been reached, even intellectually, there is a very strange change which occurs. In our old literature others were also spoken of who have reached a very,

very high point of knowledge, but have reached it through the four lower sub-planes and are simply very highly developed mentally. There is a type, of very limited numbers, certainly, who, if included here, would come into the class of arūpa, in whom the higher intellect is awakened with the intellectual recognition of unity. Those still remain tied by their past karma, but they have changed their motive. Recognising the unity, they must recognise and do recognise that they have been on the wrong path, that it is not possible to materialise the world sufficiently (for evolution has gone too far) to hold it back and prevent it climbing on the upward arc. Under those conditions they have to work out the karma they have made, which is to work on the wrong side, that is on the side of disintegration; but they work with a changed motive and endeavour to turn their forces against those who need strengthening by resistance in the spiritual life.

About the only person in the outer world who has caught sight of that is Marie Corelli; in her book on *Satan* she has touched on that point. It is not put there very well, but you will find in that the idea that I mean; the Satan there described is always glad when he is defeated. He exerts himself to oppose, but he rejoices when the man proves himself spiritual enough to resist, and at intervals he has a vision of the higher life.

That is a recognised side in the Hindū Purāṇas. There are many cases in which a man has evolved to a very high point of knowledge and then incarnates to expiate some of his past karma in the form of an opponent of good, like Rāvaṇa. There you have a being of this gigantic knowledge, who has gone through every form of experience which marks the gaining of great knowledge and power, but by his past karma is compelled to gather up in himself the evil forces of the world in order that they may be destroyed. Other religions have the same idea in different forms.

Annie Besant

## THE MODERN MAGI

A FOOT-NOTE

By JOHN BEGG, F.R.I.B.A.

I N two former essays, called respectively "Art as a Key," and "The New Tune," I have attempted to trace the evolutionary tendencies of man, particularly as exemplified, first, by the works of man, and second, by events recorded in history and taking place before our eyes. I have sought to show the relation of these works and events to one another, as well as to the subdivisions of mankind under the Theosophical classification into races and sub-races, and thereby to contribute somewhat to a clearer realisation of the existence of the Great Plan or Chart, according to which man is voyaging through the centuries.

My object in this present essay, intended to serve as a foot-note to the former two, is to amplify, in the light of fresh aspects of the subject which have presented themselves, with further insight into the thrilling passage in man's history being enacted before us, to strengthen the links that connect the subjects of my former papers, and incidentally to correct certain minor misconceptions into which I believe I allowed myself to fall in writing these.

We spent the winter of 1910-1911 in Rome. The *pension* in which we at first found quarters was one generally accepted as good. It was, moreover, inexpensive—a recommendation in the light of our financial resources. Yet my wife took a sudden and, considering the somewhat slight nature of certain

little disabilities we found in it, most unaccountably violent aversion to the place. Needs must that we should seek about for fresh quarters, and so our plans for the winter, which we had been fain to regard as settled, went again into the melting-pot. Eventually we were well content to find ourselves in a certain hotel in the Pincian neighbourhood, quarters only slightly more costly, yet—to quote the Italian lady who recommended them—“sufficiently economical and sufficiently elegant”. Looking back, it does not appear we were so very greatly the gainers by the change, in any material sense; but we are now able to recognise that, whether or not we were directed to our hotel in any occult way, our sojourn there was marked by one outstanding experience, which we should be sorry to have missed. For we made the acquaintance, indeed I may say the friendship, of one of the most remarkable men whom it has been our privilege to meet, in the person of a fellow hibernator under the same roof. Regarded with some shyness by all the other English inmates, as indeed was justified by his own attitude, his was, we instantly discovered, a most fascinating personality.

He was full of ideas of an unusual nature, and not reticent of imparting them to those whom he judged to be, as we rejoiced to find he did us, able to receive them. He was, he hinted, a practical occultist, and he impressed us with the extent and depth of his erudition. Though impatient, even contemptuous, of Theosophy, and quite ignorant of Astrology, as of all the various channels and by-channels to occultism to which we had leanings, he yet appeared to find our mental attitude perfectly congenial, and we, for our part, found him to “ring true,” even judged by our Theosophical standards. It appeared that he was of a great secret alliance or Lodge, though I do not think he called it that, a brotherhood of occultists labouring for the immediate needs of the advancement of humanity. He even went some little way in initiating us in minor methods

of his craft, thereby showing a confidence of which I trust we were not unworthy.

The most startling feature of this acquaintanceship for us was to discover the existence of such a man, and through him of such men and such brotherhoods in occultism; to find that in the twentieth century there were individuals entirely outside of the Theosophical pale who were not merely seeking to share with the poets the privilege of being among "the unacknowledged legislators of the world," but were devoting their lives in all seriousness to the study, and moreover to the practice, of veritable White Magic! It was a curiously different order of magic, a different tone of mysticism, from anything we had had hints of through Theosophical channels. It was concerned with names, sounds, numbers, tokens, definite anniversaries and spots of the earth. It had no oriental flavour. It was intensely masculine and practical, mathematical, physical, chemical, with just a hint of the pagan. Yet it "rang true". Our friend (let me hasten to say he was entirely and unmistakably sane, though, in default of our Theosophical verifications, we might not have thought so) believed fully in his art, and pointed out to us—under no special seal of confidence (for indeed the astounding nature of certain of his revelations was in itself a fair safeguard)—actual results achieved by his school. In the pages of *THE THEOSOPHIST* I think I may without impropriety indicate the nature of some of the less astonishing of these.

I have said that he concerned himself with the *immediate* needs of human evolution. He did not deny the existence of the White Lodge or of the Great Plan, but professed indifference to both. He considered that he and his kind had been given certain definite "jobs" to do, and when these were done they would be given others. His then preoccupation appeared to be with the advancement of woman, physically and politically. "If anyone wants to help 'The Gods,'" he would

say, "let him at present help women". This astonishing man was actually committing to paper what I may call "working drawings to scale," from data obtained by an occult system, of improvements on the anatomy of the female human body, from which it was his design that the said improvements should, by means partly occult, be put into effect!

Among several instances of the simpler occult manipulation of the human frame claimed by his school he cited the practice of vaccination among those of our race. "Incidentally," he said, "it gives a degree of immunity from an unpleasant disease, and otherwise does little harm. Its real object is to implant in the race some of the physical properties of the ox-steadiness, endurance"—for a special purpose, as we inferred. That was in 1911. Were his words prophetic of these present years?

Our friend was a convinced believer in the destiny of the British nation. He would dilate on how Britain was protected by the "magic of the water". He had much to say of the Holy Grail, of Glastonbury, of Saint Bridget or Bride, of the early beginnings of the Christian Church in England, and how it had a simultaneous implanting there and in Rome—but under the Pauline rather than the Petrine influence. Indeed I infer that he claimed for Britain a measure of priority to Rome in the acceptance of the Christian doctrine.

His main thesis was that this was a magical world. Up to then the city of Rome had been the centre of the world's magic, but from thenceforward it would no longer be so. The occult centre was about to be moved elsewhere—whither he did not say—and the date of its withdrawal from Rome had been fixed to coincide with that of the unveiling of the great Vittorio Emmanuele memorial in the spring of that year. On that occasion all the leading occultists in the world (the Watchers, he called them—I gathered he referred to men of the school in which he was interested) would be present on the

steps of the great monument. They might not recognise one another, but it was necessary they should all be there.

Again he would tell us how in the last days of the nineteenth century the world had been weighed in the balance. So sunk was it in materialism that the unseen Powers had it in mind to destroy it and begin afresh. What this exactly meant, I am in doubt. It may be our friend did not mean us to take the expression "destroy" too literally. However it appears the beam tipped in the world's favour, and the threatened cataclysm was averted. But, according to our informant, it had been a near thing! If this be true, and if the day should come when historians of these times should be able to recognise, verify and use such matter, what a flood of light would be thrown on all that has happened since!

But his most interesting phase was in respect to the Keltic tradition, with which he identified himself and his school. We gathered we had tapped, as it were, a vein of old Keltic, perhaps of Atlantean, magic. Astonishing to find it still at work, and still, so far as one might presume to judge, in the line of God's will!

He had much to say of the great succession of Keltic Bards, the last, and not the least, of whom he considered to have been a certain very well known writer, then recently dead. To this Bard, according to our friend, was entrusted the task of giving out to the world the Great Name, kept hidden throughout the ages, the name by which He is to be known to us at the stage of our journey on which we are entering. Our friend was with the Bard on the occasion of the giving out, and it was at Glastonbury. The form was a poem, the last he ever wrote, for he fell forthwith under the sentence of death, which the occultist who gives out hidden knowledge must inevitably face (at any rate, according to our friend, by the harsh laws of Keltic occultism). I have read the poem; it is a slight thing, and would not, I think, of itself have impressed, much less

illuminated one. But the Great Name, we were told, is JOY—pronounced as are these three letters in our language, and with the exact meaning that the word expresses. For ages, he said, races of men had been tried with the task of evolving the precise sound and meaning, with but partial success. The Jews had their Javeh or Jaweh, probably correct in sound but without the desired meaning. With the French we find an attempt at an approximation between the word conveying the meaning and that standing for the Name, in “joie” and “dieu,” but neither the approximation nor the sound were perfectly achieved. With the Anglo-Saxon race, through the medium of the English tongue, had come success, after untold generations of training, in the pronunciation and understanding of Joy as they now do; and to them had forthwith been accorded the priceless revelation.

I can only give this for what it may be worth. It has, I confess freely, impressed us greatly, and we are more than willing to believe it all. The idea, in fact, is a glorious one, and worthy of a great poet; and we should hardly do wrong if we thought of God, the God of the coming Sixth race, as Joy. For assuredly joy will be the watchword of that race, just as that of our own more sombre Fifth race is probably “duty,” and that of the Fourth may well have been “honour”. That of the Seventh will surely be “love”. Honour-Duty-Joy-Love, “and the greatest of these is Love”.

Those who have read my two former essays will now recognise the source of some of the material used in them. It was not till long after they were written, however, that I began to see the full significance of our friend’s communications. The first thought that is led up to by the foregoing is that maybe I was wrong in setting down our “Armageddon” as too exclusively a struggle between Fifth-race principles and the shackling legacies of the Fourth race. Maybe I was wrong in regarding the Fourth-race influences as standing all

on the "black" side. If Keltic occultism played the part claimed by my friend, particularly in being the medium for the revelation of the Name, then the Fourth race, through the Keltic or Fourth sub-race, must be given the credit for standing well on the "white" side. And maybe it is not by chance that the Allies are fighting under a French (Latin or Keltic) generalissimo, that France, under Leo, the "sign" of the Logos, is the main theatre of the struggle, and that the British nation has a Keltic Prime Minister. Again, it may be that I erred in not showing more clearly that it is greatly more the beginnings of, and the preparation for, the Sixth race that is our concern in the conflict, than merely the coming into its own of the Fifth race. That is to be hastened too; but the more important work is to prepare "the way of the Lord" for the new race that is beginning. Certainly it is joy we are fighting for, the right of all men to lead a joyous existence. Incidentally one of the surprises of this war has been the atmosphere of pure joy borne on to the battle-field by our British soldiery. The French, who may well have thought that they alone of all peoples understood *joie de vivre*, have looked amazed at our invincible *bonhomie*. And no one could accuse our foes of a joyous bearing, even when fortune seemed most to smile on them. The Hymn of Hate was never penned by Joy!

It is the Kelt who is stiffening us, and not only beef and beer. We have all that is best in the legacies of the Fourth race on our side, for the interests of the Fourth are linked up with those of the Sixth, and these latter are the paramount interests of the Allied side. The World-Teacher, who is now looked for, will bring a Sixth-race message to start the Sixth sub-race on its way, just as the Christ came with a Fifth-race message to our infant Fifth sub-race. And just as it was the Magi, men of the Third sub-race, and students presumably of the Third-race occultism, who were the first to recognise the Christ, so may it not be (I make the suggestion in all reverence) that the

Keltic Magi and Bards have played, and will play, a like part now? Through them may not the Fourth race reach forward to join hands with the Sixth, as, through the Magi of old, the Third did with the Fifth?

It has to be remembered that in astrological parlance the succeeding races and sub-races are said to be alternately masculine and feminine, or positive and negative; the feminine, or negative, being the 1st, 3rd, 5th and 7th, and the masculine, or positive, the 2nd, 4th, and 6th. We should expect, therefore, that there would be two characters of "tune" sounding concurrently through the ages, the one and the other temporarily alternating in dominance; two orders of teaching standing *pari passu*, but ever subject to the alternate pressing home of lessons from the one and the other during the successive Messianic visitations. The "tunes," the messages, to "feminine" races would partake of one character, those to "masculine" races of the other. The "Love" message, given to the Fifth sub-race, may thus be presumed to have been delivered in some form to the First and Third, and will doubtless be repeated in fuller tones to the Seventh. The message to the Fourth sub-race was conceivably but a clearer version of that already delivered to the Second, and the suggestion is that now the same message is again to be delivered at its highest power for the benefit of the coming Sixth.

If "Love" expresses the character of the message to the "feminine" races, let us consider it as it was delivered to our own Fifth. Our Christ said: "God is Love," it is true, but He is recorded as laying peculiar stress on love in a comparatively restricted sense, namely parental and filial love. It was the Fatherhood of God that his message specially emphasised, a fatherhood expressly indicated as being analogous to the human fatherhood understood twenty centuries ago, that which placed filial duty in the forefront. "Render unto Cæsar the things that are Cæsar's, and unto God the things that are God's."

Duty! Similarly it is not difficult to picture an even more primary form of the "Love" lesson as having been given to the Third race, for each race is asked to learn from the lesson no more than it is capable of receiving. We know that Shri Kṛṣṇa, speaking to our First sub-race, dwelt on neighbourliness and the duty of good citizenship. But I do not doubt He too said: "God is Love."

Again, if "Joy" be the character of the message to the "masculine" races, how does it fit in with what we can conceive would be that to the Fourth? It fits well, I think. Honour, glory, dominion, mastery of the physical—all these, which were conditions of the Fourth, spell a masculine ecstasy well in the line of true joy. I can form no very clear picture of Second-race conditions, but the general Venusian colour of its astrological symbols would also suggest a message in the line of joy.

"God is Love." We accept that saying, and even in a measure believe it. But do we understand it? I doubt it, for we do not yet understand love. Love is to us a bitter-sweet thing. We can hardly help associating it with the tragedy of jealousy, of non-requital, of death. We confuse it with ideas of possession, of getting, of mere kindness. So we are apt to compromise on duty. Love to us spells too much of austerity and of sacrifice to make its full appeal. We know subconsciously just enough of it to feel that not till we reach Seventh-race conditions, when death shall have lost its sting, when Saturn shall have shed his girdle of shame, shall we fully and consciously understand it—now as in a glass darkly, but then face to face.

But "God is Joy"—that is something we can understand, something well within our grasp. We can pronounce "Joy" without the sanctimonious accents we are apt to give to "Love," without the abashed looks we are apt to see, and the shamed intonations to hear, when the word "Love" is spoken.

The idea of "Love" is subtle, complex, exacting, to be dreamed of and whispered of in secret by the woman, tender, timid and tearful. The idea of "Joy" is simple and direct in its appeal, an inspiring rule of life for the man, fearless, faithful and free!

And now I want to revert to the subject of art, of which one of my former two papers treated, even though the subject may seem to be of the nature of an anti-climax after the matters I have just dealt with. But art is of very vital importance, and intimately linked with these more thrilling concerns. For it is something that has a continual message for all students of the progress of man. It speaks "in the direct voice," as it were, of past ages and races; it affords a constant and ready master-key to the understanding of human problems. I alluded to mediæval art; I asserted my belief that its meaning had not yet been understood, and hazarded the conjecture that it was of the nature of a special "sending," intended to give a foretaste of a greater art to come.

I would now recur, in the light of what has gone before in this paper, to what I said in my former paper about the leading characteristics of mediæval art being joy. I would add to what I then said in support of this idea by inviting a closer examination than I then attempted of the construction and structural principles of the Gothic cathedral as compared to those of any typical Classic or Renaissance building. The Gothic artist's aim was to meet thrust with exact counterfort, to allow the stresses and strains to suggest form, to expend themselves, as it were, in self-realisation. The glory and the beauty of his art consisted in this, that it expressed all currents of strain and counter-strain. The Classic, on the other hand, suppressed these; it achieved stability by smothering resistance by sheer weight of mass; it buried its strains and counter-strains without allowing them either expression or self-realisation. In this the Classic resembles the military Imperial idea as applied to

world-conquest and dominance, and the suppression of all minor currents of national sentiment; the submerging of small peoples and their aims, the crushing of opposition by sheer brute force. The Gothic, on the other hand, stands for freedom, for self-expression of every component part and each dynamic constituent, just as do those doctrines of free nationality which we have set up against the propaganda of military Imperialism.

I make no apology for reverting to a parallel which I have already dwelt on at some length in my former paper from the point of view chiefly of the *sentiment* of Classic and Gothic art. It is striking to see, in the light of what has now been said, how it is borne out by an analysis of the very structural principles employed in the respective art-periods. And, if a material hint of the truth of this parallel be looked for, we have but to contemplate the savage rage with which our foes have loosed the forces of destruction against one after another of the world's monuments of mediæval art, especially against that one which has been most acclaimed as its supremely glorious and joyous example, the cathedral of Rheims!

And so I want to say that in mediæval art I see more and more a foretaste of the art of the coming Sixth sub-race, rather than that of the Fifth, and that I doubt whether the Fifth sub-race will ever be recognised as having produced an art-expression of its own fit to stand beside those of the Fourth and Sixth. On maturer thought I am more inclined to conclude that the art-obscurisation, which has marked our sub-race, has been inevitable. "Duty" has been too grim a watchword to inspire the artist. In the atmosphere of duty he can produce only pot-boilers. The atmosphere that he needs is best expressed by the watchword "Joy".

John Begg

## SANAT-KUMĀRA, THE ETERNAL VIRGIN YOUTH

By LIGNUS

THERE are several references in Samskrit and Pāli literature to this Great Being, first heard of, perhaps, by Western readers, in *Man : Whence, How and Whither*, in which book he is explained to be the leader of the still remaining Five Lords of Venus, who came to quicken our human evolution on this planet: “in the Fourth Round, in the middle of the Third Root-race, to quicken mental evolution, to found the Occult Hierarchy of the Earth, and to take over the government of the globe . . . these are the true Mānasaputrās, the Sons of Mind . . . the sons of the Fire, the Lords of the Flame.”<sup>1</sup>

According to the story of the Hindus and Buddhists, there were five “mind-born” sons of Brahmā, who remained always pure and innocent,<sup>2</sup> and this Brahmā was one of the Five. He is regarded as an ideal man. For instance, in the *Buddhacarita* of Asvaghosa, 2, 27, the Prince Siddartha is described as “he who was like Sanatkumāra,” and again (do., 5, 27) his father, Suddhodhana, is “like Sanatkumāra in heaven, waiting on Indra, resplendent in the assembly of the Māruts.”<sup>3</sup>

In Digha-Nikāya, *Ambaṭṭhasutta*, par. 99, we have this passage quoted with approval by the Buddha :

<sup>1</sup> pp. 24, 79, 101, 103, 269.

<sup>2</sup> *Dialogues of the Buddha*, Rhys-Davids, Vol. 2, p. 121; *Mahābhārata*, 3, 185 (Bombay ed.).

<sup>3</sup> *Buddhist Mahayāna Suttas*, S.B.E., Vol. 49, pp. 21, 53.

One of the Brahma Gods, Sanamkumāra, uttered this stanza :

“Best of all those who pride themselves on birth  
The Khattiya ; but best of Gods and men  
Is he who fully wise and righteous is.”<sup>1</sup>

Again, in Digha-Nikāya, *Jana-Vasabha-Sutta*, the Brahmā, Sanatkumāra, enters the Council of the Gods and takes a material form (for He is too lofty a being to be visible even to the Gods of that high realm) in order to recommend the Buddha's Doctrine to them—a pleasant fairy-tale, which may be based on actual facts.

The Three and Thirty Gods were in the Hall of Good Council, discussing happily the increase of Devas and decrease of Asuras. The Four Mahā-Rajas were present, and: “Serene and calm they stood each at his place.” Then a bright light came out of the North and “a radiance shone around, surpassing the divine glory of the Gods”.

Then said Sakka, king of heaven, to the Thirty-Three : “According, friends, to the signs now seen—the light that ariseth, the radiance that appeareth—Brahmā will be manifested. For this is his sign.”

Then the Thirty-Three sat down, agreeing to find out the cause of the splendour, and to go out to meet the King. Now when Sanatkumāra appears before the Thirty-Three he appears as a material body which he has himself created, for his usual appearance is not solid enough to be visible to the Thirty-Three. And when he appears, he outshines the other Gods in colour and in glory, just as a figure of gold outshines the human form, and no God in that assembly salutes him or rises up or offers him a seat, but all sit in silence, cross-legged with folded hands, thinking: “Of whichever God Brahmā Sanamkumāra now desires anything, he will sit down on that God's throne, and, by whatever God he sits down, that God is filled with sublime satisfaction and sublime happiness, like a newly anointed Khattiya king.”

<sup>1</sup> *Dialogues, ib.*, Vol. 3, p. 243. I have much abridged the story.

So Brahmā Sanamkumāra, *having created a grosser form, took the appearance of The Youth with the Five-Pointed Star* (*pañcasikha*—five points or crests or radiances), and showed himself in the Assembly of the Thirty-Three, rose into the air and sat cross-legged in the sky.

He then spoke in praise of the Buddha's Doctrine in a voice of the eightfold characteristics, namely, "fluent, intelligible, sweet, audible, continuous, distinct, deep and resonant"; this is the Brahmā-voice: and he made a shape of himself to sit on the throne of each of the Thirty-Three Gods, and each God thought that he himself was saying what was said:

If He be speaking, speak the Thirty-Three:  
If He be silent, they all silent sit.  
Then think the Thirty-Three, led by their king:  
"He who is on my throne alone doth speak."

After praising the Fourfold Path of Iddhi-Power of the Buddha, he said: "I too, my Lords, by practice of these ways have attained power therein." He then went through the whole system of the Buddha and ended by telling of the Goal and of those who attain thereto, and of the Anāgāmins, who return no more to this earth, but attain the goal of Nibbāna in some heaven world; he said (of the Arahant):

But of that other Breed to tell,  
Of higher merit, lo! the tale  
I cannot reckon, lest perchance  
I should offend against the Truth.

He ended by saying: "There hath been in the past a Teacher so glorious, a doctrine so glorious, a proclaiming of such glorious goals: and in future times also there shall be a Teacher so glorious, a doctrine so glorious, and a proclaiming of such glorious goals."

The same framework of a story is found in the *Mahā-Govinda Sutta*, D. N. 2, in which the Buddha is reminded by Brahmā Sanamkumāra, in the form of the Gandharva Five-Pointed Star, how in former days He had striven to attain rebirth in Brahmā's realm, to have communion with the

Brahmā world: “But,” said the Buddha, “O Five-Pointed One, that way did not lead to liberation: but my own way leads to Nibbāna, and that Way is The Ariyan Eightfold Path of Right Views, Right Thought, Right Speech, Right Action, Right Living, Right Effort, Right Concentration, Right Mental Balance. . . . And those of my disciples who thoroughly grasp my Doctrine, by destruction of the Taints have reached (Nibbāna) freedom from rebirth (Arahat). And those who do not fully grasp my doctrine, yet have broken the Five Fetters of this world (and are Anāgāmin), are in the next birth reborn without parents (*opāpātiko*—*i.e.*, deva-birth) in a state where they will reach liberation without rebirth in this world.

“And some, having broken Three Fetters, and having worn thin the three Fetters of *Lobha*, *Dosa*, *Moha*, are once more to return, and then they shall make an end of Ill.

“And some, having broken the Three Fetters (*i.e.*, the first three, of delusion of soul, doubt and ritual) will never be reborn in miserable states (in hell, purgatory or as an animal). These have won the Stream, and are sure to attain insight.”

Here, then, in this legend of The Ancient of Days, The Eternal Virgin Youth, Sanat-Kumāra, we have the germ of the idea of a Personal God, the Ruler of this world, who takes on a human form, Brahmā—not to be confused with Brahman, the unknowable, unthinkable, uncreated, of which the Buddha said: “Without this uncreated the created could not exist.”

Lignus

## REPORT OF THE T.S. IN FINLAND<sup>1</sup>

*To the President, T.S.*—I have the honour of submitting to you, this time, a triennial Report, covering the period from November 1st, 1914, till October 21st, 1917. My Annual Report of 1915 was probably lost in the post, and as I have received no General Report for 1914, I do not even know if my Annual Report of 1914 has reached Adyar. The General Reports for 1915 and 1916 have duly arrived, and I thank you very cordially for your kind words about myself at the last Annual Congress. I really sent no Report in 1916, fearing, as I did, that it might be lost again. Now I sincerely hope that this Report may safely reach you.

The increase in membership during these three years has not been great. In the list of the General Report, 1915, the number of active members is given as 523. As the total now amounts to 634, the increase has been 111. Two new Lodges have been formed, *viz.*, *Korventuli* in Vihanti and *Tie* in Savonlinna (Nyslott). The number of Lodges is now 24.

These heavy war times have, of course, had their influence upon our Theosophical work, making it rather silent and slow. Although the Lodge and lecture work has been carried on regularly and unhampered, everything has been done somewhat *alla sordina*, and my aim as General Secretary has been only to keep the Society sane and safe during the troublous time, leaving its greater expansion to a more prosperous future. This new and better time seems now to have dawned upon us. Russia's great revolution last spring made political conditions more free, and also our Theosophical work got a powerful impetus. All dormant energies were awakened, and a stirring life was felt in the Society.

But first, let me put on record some of the work done during the years that have passed. I especially wish to mention Mr. J. R. Hannula, who in October, 1915, left his former work as manager of a large dairy firm in order to dedicate his whole life to the spreading of Theosophy. For these two years past he has been constantly travelling about the country, lecturing and selling Theosophical literature. The blessing of his faithful and unpretending work is immense. Other faithful and tireless lecturers are Mr. V. H. Valvanne, who visited several Lodges, Dr. Willie Angervo and Mr. Lahja Leppanen in St. Michel, Mr. Kyösti Laine

<sup>1</sup> The following Reports arrived too late to be included in the General Report of the T. S. Convention.

in Tammerfors, and many others. The lecture work in Helsingfors has been regularly carried on by myself as usual, and many *matinees* and *soirees* have been given by our artist members. Among other branches of the work are to be mentioned: the Star of the East work, which since January this year has got a small review of its own, the Lotus schools in some places, and the young people's Theosophical League, especially in Helsingfors.

The Annual Convention of 1915 was held in St. Michel, June 24th—27th, that of 1916 in Viborg, June 23rd—26th. At both Conventions I was unanimously re-elected General Secretary. Since the Viborg Convention the Executive Committee consisted of the following persons, *viz.*, Mr. Aapo Pihlajamäki, Mr. Jussi Snellman, Mr. Juho Tukiainen, Mr. Juho Simpanen, Mrs. Ida Helio, Miss Malin Lindholm, with Mrs. Olga Salo as Secretary and Treasurer. This year the Annual Convention was held in Helsingfors, October 21st—23rd. Our Society was now ten years old, and I had acted as its General Secretary since its birth. I now wished to give place to other and younger forces, and although the Convention would have re-elected me unanimously, I formally declined. So Dr. Willie Angervo was elected General Secretary, and the following persons members of the Executive, *viz.*, Mr. V. H. Valvanne (Vice-Chairman), Mr. Hugo Valvanne, M.A. (Treasurer), Mr. Yrjö Kallinen (Lodge Secretary and Inspector of Lodges), Mr. Unto Nevalainen, Mr. Yrjö Lehtinen, and Mrs. Kyllikki Ignatius. The Convention did me the honour of nominating me Honorary Member of the T.S. in Finland with the title of "General Secretary Founder". I was also presented with a precious gold watch by some friends.

I append a list of books published from November 1st, 1914, until now.<sup>1</sup> The Theosophical review *Tietaja* has now more than 2,000 subscribers.

The Theosophical Society in Finland sends its hearty greetings and best wishes to the President and to the Annual Congress of 1917, although it does not seem likely that this Report will reach the Convention in time. I leave the General Secretaryship of the T.S. in Finland under good auspices, and I hope that the Theosophical work in Finland will go on successfully, ever widening the circle of its influence and authority. Thanking you, my dear and beloved Mrs. Besant, for the time I have acted as your Secretary in Finland, I assure you of my never-dying love and friendship.

Yours as ever,

PEKKA ERVAST

---

<sup>1</sup> This list was received, but is not appended here.

## REPORT OF THE T.S. IN CUBA

*To the President, T.S.*—I have the pleasure of submitting to you the Annual Report of the Cuban Section for the year ending 31st October, 1917. During the year we met with several vicissitudes painfully affecting the Cuban Section on its onward course. Besides the European War and the Mexican revolution, a little civil war which broke in upon this Island has a great deal marred our regular growth, both on its material side and that of the spreading of Theosophy. This caused many members to drop out, but notwithstanding, we are striving to compensate our losses, with the help of a few faithful servers, and are maintaining as best we can our Theosophical propaganda and trying to influence the general public by our teachings.

The internment of our beloved President (which we knew by *The Messenger*) has deeply impressed all members of this Section, who are greatly regretting that such political measures were ever considered necessary by a representative of the British Government, although we are sure that persecution and moral torture has exalted her even higher before Humanity and also Those who are Power and Love. We greatly rejoiced when we knew (by *Bulletin Theosophique*—the French T.S. organ) that her internment, together with that of her two companions, had come to an end.

During the year the following Lodges have been chartered :

Name	Place	Country
Sirio ... ..	Mexico... ..	Mexico
Theo-Citlalin ... ..	" ... ..	"
Sol ... ..	Trinidad ... ..	Cuba

The following Lodges have been dissolved :

Name	Place	Country
Lote ... ..	Mexico... ..	Mexico
Hellen P. Blavatsky... ..	Aguadilla ... ..	Puerto Rico
J. Krishnamurti ... ..	Utado... ..	"
Quotzalia ... ..	Guatomala ... ..	Guatomala

One hundred and forty new members have been enrolled and 137 have dropped out for the following reasons :

Non-payment of fees ... ..	110
Died ... ..	5
Resigned ... ..	13
Transferred ... ..	9
	137

Therefore we actually have 36 Lodges and 827 members, distributed as follows :

Cuba ...	...	20	Lodges	...	...	455	members
Costa Rica ...	...	3	„	...	...	90	„
Mexico ...	...	7	„	...	...	171	„
Puerto Rico ...	...	3	„	...	...	74	„
El Salvador ...	...	2	„	...	...	24	„
Panama... ..	...	1	„	...	...	11	„
Colombia ...	...	...	...	...	...	1	member
Venezuela ...	...	...	...	...	...	1	„
		<u>36</u>				<u>827</u>	

Notwithstanding the difficult financial and moral conditions throughout the countries which form the Cuban Section, the Theosophical propaganda has been very much reinforced by the increase of periodicals. Our official organ *Revista Teosofica*, interrupted February, 1916, was resumed again since last February. Virya Lodge, S. Jose de Costa Rica, continues the publication of its quarterly magazine *Virya*, and also *La Estrella de Oriente* is being published by Ananda Lodge, at Pence, Puerto Rico. So are doing some Lodges of Mexico with *Mayab*, another Theosophical paper. To the above we have to add a new magazine by Lodges of Mexico City under the name of *A Fraternidad*, and the bulletin *Teosofia* by the Surya Lodge of Havana.

It is intended by some members to work on Co-Masonry and Education, but these activities have not as yet come to be a matter of fact.

In conclusion, I beg to send, in the name of the Cuban Section, our deep love and devotion to the beloved President and our cordial greetings to all brothers at Convention.

RAFAEL DE ALBEAR,  
*General Secretary*

## REPORT OF THE T.S. IN SCANDINAVIA

*To the President, T.S.*—The work of the Scandinavian Section has been carried on in the same way as during previous years. Two new Lodges have been formed, namely, the Olcott Lodge in Copenhagen, and the Hernosand Lodge in Sweden, the latter being merely a revival of an old Lodge, which had for some years ceased to exist. The *Helsingborg* Lodge has been dissolved. The total number of Lodges thus attains 30. During the year from November 1st, 1916, to November 1st, 1917, 108 new members were admitted, 27 have resigned, and 10 have died. The total membership thus has been increased to 909, whereof 758 are Lodge members, and 151 unattached; 6 unattached are living in Finland. The total increase is thus 71 members. The following table shows how the members and Lodges are distributed in the different countries :

COUNTRIES	MEMBERS Nov. 1st, 1916	INCREASE	DECREASE	MEMBERS Nov. 1st, 1917	LODGES
Sweden	488	41	24	505	23
Denmark	298	59	12	345	5
Iceland	46	8	1	53	2
Finland	6	...	...	6	...
Total	838	108	37	909	30

The propaganda work has been carried on by the members of the different Lodges by public lectures in connection with the Lodge work. An intense lecturing work has at intervals been done through the group of young members living at the Colony of Stocksund, partly by the members of this group and partly by Mr. G. Lindborg, who has held several series of lectures at the People's House in Stockholm, with special addresses to the working classes. This has proved to be a good idea, as the more intelligent among the workmen seem to be eager to receive the message of Theosophy. Big classes for studying Theosophy have been formed out of the audiences at these lectures. In Denmark the propaganda work has been upheld through lecturing tours by Mr. Thaning and Mr. Lexow.

Our sectional monthly, the *Teosofisk Tidskrift* has been edited on the same principles as before. A new publication called *Medlems Bladet* (Bulletin for members) has been started on January 1st for the special information of our members about the work of the T. S. and about the vital questions concerning its new departures in the social and political field, deemed practical to discuss among members only. Owing to the great expense connected with our publications a proposal to stop temporarily the *Teosofisk Tidskrift* has been voted on, giving evidence to the great interest among the members for continuing this publication in the previous way.

The Annual Convention was held at Pentecost in Copenhagen, Mr. Erik Cronvall being re-elected General Secretary. The Convention proved to be a great success, working to the end of strengthening the work in Denmark, where all Lodges except one have been more closely connected by forming a Lodge Council under the presidency of the newly elected Danish representative, Countess Ellen Bille Brahe Selby.

We have all been following with the greatest interest, coupled with anxiety as to your welfare, the great work which you are carrying on for the uplift of India. The news of the internment of yourself and your brave assistants, as well as your final release by order of the Government, have been noticed and commented on in the Press even in our countries. It is our hope that you will be permitted to work in the future in the same splendid way as you have always done during many years, and that the difficulties now successfully overcome will lead to the effect of bringing about the final triumph of your cause.

Your Seventieth Anniversary was celebrated at Stockholm, and a telegram of congratulation was sent, which we hope will have reached you.

We beg to present the most affectionate greetings from our members in Scandinavia.

ERIK CRONVALL,  
*General Secretary*

## CORRESPONDENCE

### HOW, WHEN AND WHERE?

ENVY, of a refined and rarefied type of course, is apt to possess the average Theosophical soul when reading Mrs. Besant's intimate "Talks" to a class in Adyar. What wouldn't *we* give to be able to sit at her feet! What a boon to even ask a question now and again.

Why not *ask* a question then, said my Theosophical soul to me—even on paper; a query that perhaps your Fellows might also wish to make, and perchance have it answered in THE THEOSOPHIST. Perhaps others are at intervals conscious of the great power behind the Theosophical Society, and are also confused as to the manner in which it should be used.

We have been told to endeavour to be channels for the Master's power. But how, when and where? Some days ago, when I was feeling widely benevolent (I believe I had been meditating), the garbage man drove up. Why be a respecter of persons? Anyway, probably he needed help more than some likely-looking citizen. Immediately I concentrated on the poor chap, and poured out power upon him. Evidently he responded with a sense of great confidence and bravery, for he stole my biggest and best garbage can.

It may have been a coincidence, but at other times when I "poured out" I have had reason to suspect that I had been acting the part of a flappedoodle. If the garbage incident was not a mere coincidence, what was wrong? The channel is defective, to be sure; but I am not thievish. If the fault was with the fellow himself, does not the result contain a hint against indiscriminate outpourings? Did some dark force suddenly nab him? Or does this power act as a stimulant to intensify whatever is uppermost in humanity, as liquor will make one man revel in the beauties of Shakespeare and cause another to knock his neighbour on the head? Or will this force, which we endeavour to use for good, ultimately result in good, although the immediate manifestation be evil?—miniature Jean Valjean episodes? At any rate I should like detailed information before I experiment much more with a force which is very real and magnificent in range, but which evidently may, through ignorance, be misapplied. If misapplied, then in a sense wasted, of course, if not actually harmful.

Another illustration of my own probable folly. At a funeral I endeavoured to help mentally the struggling young pastor, who had

been ill instructed for his job, like so many American preachers. He stopped stammering and was getting along beautifully, when he made some absurdly dogmatic statement which I couldn't possibly endorse. My mental denial was immediate. "Oh no," thought I, "I cannot help anyone to make such pronouncements!" Immediately the young fellow contradicted himself. After the service one of the congregation remarked (he was of an antagonistic religious persuasion): "Well, that's the first time I ever heard a preacher contradict himself in the pulpit, almost in the same sentence."

F. A.

---

### REPLY

IT is not desirable to concentrate on a person and pour thought-force into him. It will run along a channel already cut in his nature, and help him to good, if that be his normal tendency, to evil in the reverse case. Concentration may be used to send out a good thought into the neighbourhood; it will be attracted and assimilated by those who are receptive, and will pass others by. Thought is a real force, and to drive it at an individual is always dangerous unless done with knowledge. Thoughts of love, of protection, may be sent to those the sender knows; evil influences known to be surrounding a friend may be opposed by a shield of love interposed between him and them, radiating outwards.

The incident of the young preacher is instructive. It is easy to confuse a receptive person while he is speaking; but F.A. would do well not to shoot out such currents in future; it is hardly fair! But of course F. A. did not realise the force of thought, trained by regular meditation.

ANNIE BESANT

---

862696

## THEOSOPHY AND CHRISTIAN SCIENCE

WHEN reading, in the February THEOSOPHIST, Mr. Woodward's remarks under the above heading, the question kept tapping at my consciousness as to whether he could imagine Buddha, of whom it is evident he is a disciple, expressing Himself regarding either Jesus or Mrs. Eddy with such a lack of sympathetic comprehension.

As a Theosophist and, therefore, to some extent a student of the Power of Thought, it seems to me clear, although not a Christian Scientist (why not Sciencer, if I am a Theosopher, according to Mr. Woodward?), that Mrs. Eddy has enabled many millions, including about twelve millions of her followers in the United States, to break through the stultification of convention and to lift, even though very slightly, the veil hiding, or rather screening, the Mysteries. To have accomplished this means helping a very large number of people to realise a varying degree of responsibility and consequent necessity of co-operating consciously with a Divine Purpose and Plan so far as they are understood.

If this conclusion is correct, it means that although the Christian Scientist of to-day, owing to past habits of thought, may find it impossible, difficult, or apparently unnecessary to accept Reincarnation, there is little doubt that their children, with a less prejudiced mind and a more sensitive consciousness, will respond to the teachings of Theosophy, if reasonably presented, to a remarkable extent; in fact they are likely to show a highly intuitive, *i.e.*, a sufficiently "unreasonable" recognition of the Truth.

But why lump Jesus and Mrs. Eddy together, and by attacking the latter suggest the defective teaching of the Author of the Christians? We do not condemn Brāhmanism because of the Jains, nor Buddhism because of Lamaism, nor Confucianism because it has not converted Shintoism and Taoism.

If Theosophy is of any value to us, it should surely teach us Charity, and enable us to recognise that ALL religions, and the sects of all religions, are but the various aspects of a great central Truth, even as the many applications of electricity do not contradict one another. The dazzling searchlight and the humble electric hair-brushing machine are but expressions of the same mighty power, even as, let us say, Buddhists and Christian Scientists are but expressions of the same Mighty Power of Love, the recognition of which, in sufficient intensity, has doubtless been the force which has sent all religions on their way to the hearts of their followers.

*London*

FREDERICK THORESBY

## BOOK-LORE

*Shakṭi and Shākṭa*, by Sir John Woodroffe. (Luzac and Co., London.)

This book consists of four articles, which have appeared mostly in Indian magazines, and a series of lectures delivered before the Vivekānanda Society at Calcutta. The author is already well known to students of Oriental philosophy, under the *nom de plume* of Arthur Avalon, for his important work, *Principles of Tantra*, two volumes of which have already appeared; and our readers will no doubt remember articles in THE THEOSOPHIST from his pen. For the benefit of any who are unacquainted with his work, it may be as well to mention that his translations of Tāntric literature, and his comments thereon, have been carried out with the object of rendering this interesting and extensive side of Hindū religion available to Western readers—and, in many cases, Eastern readers too—and thereby removing much of the ignorance and consequent prejudice which has hitherto prevented the subject from receiving intelligent study. In this pioneer undertaking Sir John Woodroffe has already achieved a remarkable success.

The whole system of Tāntric philosophy and ritual is based upon the conception of Shakṭi, Divine Power, which is personified as the consort of Shiva and therefore as the World-Mother. In this way the author claims that an object is provided for human worship and comprehension without invalidating the monistic origin of the conception. In fact he argues that not only does it remove the chief objection to which the Vedānta philosophy of Śaṅkarāchārya is open, namely, that of being a cold and lifeless abstraction, but is actually more consistently monistic, as it avoids the implication of an apparent unreality—Māyā. According to the Shākṭa philosophy, manifestation is real in the sense that it is willed by the One and is an expression of His Power. It is therefore essentially pantheistic, but is a transcendental pantheism in that Shiva, the One, has also the power to withdraw from manifestation, in which case the universe disappears.

The accompanying drawback to this position is that “evil” is included with “good” as “divine,” and hence the ignorant have

jumped to the conclusion that the lower manifestations of life are equally worthy of worship with the higher, the natural result being that sensual accompaniments have crept into the ritual and have been seized on by opponents as invalidating the entire system. Of course, as the author points out, it is not fair to judge a movement by its extremist exponents, and therefore he presents the *Ṭantras* to us just as he finds them, impartially but sympathetically, and brings to bear on them all the weight of his learning and scholarship.

The main portion of the book is occupied with the purely philosophic aspect of the *Ṭantric* system, and the chapters on *Chit-Shakti* and *Māyā-Shākṭi* especially reveal a wonderful grasp of the fundamentals of consciousness. But, as the author constantly reminds us, the *Shākṭa* is essentially a man of action, and is not content with mere intellectual abstractions as a substitute for realisation. He has therefore elaborated a scheme of ritual in which the *mantra* plays an important part, and a very interesting chapter is devoted to the laws of nature on which the *mantra* depends for its effect. The final item on the *Shākṭa's* programme of self-development consists in arousing the serpent-fire, or *Kuṇḍalinī*; and so we find this subject, which Theosophists are wont to speak of with bated breath (and no doubt quite rightly), presented as a practical proposition, and so far explained that we naturally begin to wish to hear some more about it. This justifiable curiosity will, we understand, be satisfied by the next volume of *Principles of Ṭantra*.

On the whole we do not imagine that the temperament for which the methods of *Ṭantra* were originally intended, is often met with in the world of to-day, least of all in the West. On the other hand, there may be many who find in these ceremonies a comfortable halting-place on the journey of life, without actually developing any tendencies towards becoming either selfish or unselfish magicians. Probably their chief use nowadays lies in affording some valuable evidence of the recognition of occult powers in the past and the possibility of their being used again in the future by those who have earned the right to use them. Be that as it may, the student of religion, and above all the Theosophist, owes a deep debt of gratitude to Sir John Woodroffe for his bold championship of a misunderstood philosophy, for the mass of material he has made available, and, especially in the case of this book, for the able manner in which he has rendered it intelligible to the average reader.

W. D. S. B.

*Practical Theosophy*, by C. Jinarājadāsa, M.A. (Theosophical Publishing House, Adyar, Madras. Price Re. 1.)

Asked, "What is Theosophy?" we are sometimes tempted to answer, "Everything". It is a science as much as it is a religion, or a philosophy; with the methods of science it combines the inspiration and the intuition of Art; it offers an answer to every question and a solution for every problem. One might say shortly that it has "a place for everything, and everything in its place". Thus, in *Practical Theosophy* we are shown, not so much the place of Theosophy in practical affairs, as the place which the various departments of activity have in Theosophy. The author bears ever in mind the synthesis of things, just as he advocates that children should be educated to do in the chapter dealing with school life. For him life is a totality into which he fits the parts as the pieces of a puzzle. In seven small chapters the whole field of everyday life is covered—(1) general, (2) in the home, (3) in school and college, (4) in business, (5) in science, (6) in art, (7) in the State—the one message being conveyed throughout—that the Soul is immortal, and a background of eternity lies behind all the changing scenes of life.

The home is pictured as a meeting-ground for souls who have "kārmic obligations" to discharge towards each other; also it is a stage for the rehearsal of parts to be played in the future. The child as a soul "does not belong to the parents; they are only the guardians of his body," and while the animal instincts of the body should be curbed, as a soul "he has the right to make his own experiments in life". At the present moment, when education has a foremost place in our thoughts, the third chapter and pages 9-12 of the second chapter are specially valuable. The need is pointed out for a synthesising element in education, to enable the child to feel the various departments of knowledge as parts of a whole.

A work yet waiting to be done for education is to write textbooks and story-books for children which present to them the universal life of humanity, while fascinating their imagination at the same time; we could make of children great philosophers, if only we realised that philosophy is not a matter of definite systems or schools, but of thoughts, feelings and aims which the best of humanity have all in common.

A fascinating chapter is the fourth, "Theosophy in Business". We are able to recognise spirituality in the intellectual grandeur of Science, and the emotional splendour of Art, and we allow that the home and the school life may be spiritualised, but we are apt to look upon business as an unspiritual department of life. We recognise its necessity, we know somebody must carry it on, much as we realise that some one must fight our battles even though we disapprove of war. Each one of us has more or less some touch with this great

business life of the world, and we touch it gingerly with finger-tips, regarding it as an unavoidable interruption to our upward progress. That "the trivial duties of the home have shining through them the light of Eternity" we admit, for it touches the sentimental in us, but it is a revelation to descry the light of Eternity gilding the common task of the man counting out cold coin, or reckoning up dry figures, to see Him who is the Great Architect, and the Father of us all, revealed also as the great Business Man, working through the all-important organising and administrative department without which civilisation would collapse. We had thought of greed, dishonesty, self-interest, and lo! we find men attaining union with the Divine, by accurately and efficiently carrying out "my Father's business".

D. C.

*The Heritage of Our Fathers*, by C. Jinarājadāsa, M.A. (Theosophical Publishing House, Adyar, Madras. Price As. 12.)

India's heritage from her fathers (and mothers) is, according to this small book on a large theme, Soul-Force. When India enters into the full democracy that realises the Great Puruṣha in all humanity, she will also have achieved the true world-conquest. That is the central thought of the book: a spiritual empire of service to transmute the empires of conquest and materialism. Signs of that coming empire are to be found in the dramas of Rabindranath and the pictures of the Bengal School, which, without losing the divine vision, have realised also the divinity of life. To the Hindū pantheon, the author adds another potent deity, God the Nation—not the State, which is a heartless machine, but the nation, the people, which is a vital personality. A hopeful book, this, and in the author's happy style. It is in the fitness of things that Mr. Jinarājadāsa, probably the most western of Easterners, should dedicate it to probably the most eastern of Westerners—Mrs. Besant.

J. C.

*Reincarnation: The Hope of the World*, by Irving S. Cooper. (Theosophical Publishing House, London. Price 1s. 6d.)

Mr. Cooper has been for many years a lecturer on Theosophical subjects, and it is evident from the little volume before us that he is experienced in dealing with the problems which beset the minds of "enquirers". Theosophists who are interested in propaganda should certainly acquaint themselves with this book, as one which will help

many of those who come to them for an explanation of the subject of Reincarnation, and at the same time one which will be of assistance to themselves in arranging material for lectures. It is very simply written and introduces very few of the technical words and phrases which bewilder the beginner. Apropos of this effort—so successful in the main—to use only the simplest terminology, there is one word which Mr. Cooper introduces which, we think, if made current, will tend to confuse the mind of the beginner, and that is “soul-body” for what has hitherto been called “causal body”. The word “soul” is already applied to so many different conceptions, which it is difficult to keep disentangled from one another, that to add another seems a pity. However, among so many excellences, this is perhaps a matter of comparatively small importance. A more important defect, and one which may make the critically-minded reader pause, is that under “Proofs of Reincarnation” the author has included what can hardly be called more than arguments in favour of the truth of reincarnation. One is afraid that by claiming rather too much Mr. Cooper may damage the cause he has so much at heart and which, for the rest, he so ably supports. The book is one of the best of its kind.

A. DE L.

---

*The Science of Immortality*, by D. N. Dunlop. (The Path Publishing Co., London. Price 4s. 6d.)

Mr. Dunlop's book of essays is a happy combination of speculative metaphysics, Theosophical teachings and illuminative imagination. It discloses much quiet, original thought and expression on abstract subjects such as “Will,” “Thought,” “Breath and Desire,” “the Soul and its Manifestations,” etc. A special feature of the book is the absence of all Eastern terms, and this will enable non-Theosophists to read it without difficulty. It contains a particularly fine chapter on “Personality,” in which the arguments are finely driven home by a wealth of illustrative figures of speech.

In the essay on “Breath” Mr. Dunlop writes of “the tidal ebb and flow of the breath between the centres within and without the body,” and the tide of reasoning throughout all these essays seems similarly to ebb and flow between the view of the human being as the “epitomised edition of the world which each of us is” and the view that “we see ourselves reflected in our environment”. The author's working out of the latter view brings him to very thought-provoking conclusions, one of which is that he considers man the creator of types of animals, so that the carnivora are the products of the preying,

rapacious thoughts of humanity. Oscar Wilde reasoned in a parallel style, that the artist created Nature, and that there was a change in fashion as to what people generally saw, as Nature produced entirely according to these changing views, primarily of artists.

An example of the author's arresting method of epigrammatic expression is the following :

The descending life acts as food for the ascending life ; the manure at the root of the rose has a great deal to do with the beauty and perfection of the flower. It might be said indeed that filth and fertility are the same.

The writer's aim seems to be rather to start, or sometimes startle, his readers into a new way of looking at the fundamentals of life, and leave them to follow out all the implications themselves, rather than himself to work out fully the various new ideas he brings forward. This is the stimulating and suggestive method of the true educator, and we have no doubt that this book will be a valuable help to those in a state of mental transition who are seeking fresh materials for spiritual reconstruction between those "cycles of recurring materialism" on the different planes, of which the author treats so wisely.

M. E. C.

*Our Boys Beyond the Shadow*, edited by the Rev. Fred Hastings. (Sampson Low, Marston and Co., Ltd. Price 4s. 6d.)

We have here eighteen short essays by a number of Christian ministers belonging to different denominations. The essays deal with subjects which are perplexing the minds of many people all over the world at the present time, and which arise from the fact that hundreds are mourning the death of husbands, sons and brothers without having the comfort of any very definite idea of what death really means or of what is the fate of those who have passed "beyond the Shadow". The book represents the average opinion of educated Christendom, and is useful to Theosophists for at least one reason : it gives them a fair idea of current Christian belief. Many propagandists in the T.S., having themselves no further need of support from the Churches, lose touch entirely with the average thought of the time, and in their lectures or in their talks with enquirers show themselves quite ignorant of present-day Christianity, speaking of it as it was, years ago perhaps, when they themselves left its fold. To such the present collection of writings should be welcome.

A. DE L.

## THEOSOPHY IN THE MAGAZINES

## THE RELIGION OF THE GOD-STATE

AT this time when numbers of people are expecting a new development in religion and in some cases attempting to anticipate the direction such a development is likely to take, it is well for those who have the advantage of some Theosophical study to notice any striking expression of religious thought that may be put forward, even though it be in direct antagonism to their own views, especially when the real antagonism is partially concealed by a superficial resemblance. An instance of the latter kind is provided by a quotation appearing in the May number of *The Modern Review* in the course of an article entitled "The Future of Militarism". This quotation is taken from Mr. G. Lowes Dickinson's book *The Choice Before Us*, and is an attempt to forecast what the religion of the future will be if militarism is accepted as a policy inevitable for self-protection. The strength of the religious instinct has ever been recognised by leaders of all manner of enterprises, and consequently we find that the successful leader generally begins by trying to win over the religious instinct of the people to his side by producing or reviving a brand of religion that best supports his cause. Bearing this fact in mind, Mr. Lowes Dickinson gives the modern militarist credit for sense enough not to neglect religion as a primary means of furthering his ends; indeed this has already been done to a considerable extent in Germany, resulting in a blind worship of the Fatherland and its Kaiser, and the determination shown by the masses in the present war. He therefore outlines a religion which he calls "the religion of the God-State"—exaggerated perhaps, but none the less probable when compared with the lines some religious sects have pursued in the past—in order that the spread of militarism by this method may be detected and nipped in the bud. The passage begins with a short creed, the satire of which is all the more effective for the close resemblance of its doctrine to much that is being preached nowadays.

The essence of this religion, stated without compromise or qualification, is as follows: The State is the purpose and end for which individuals come into existence. It is a god, and, like other gods, it is mysterious. Its nature is unknowable and indefinable. . . . The State is something supernatural. It is not the sum of its members. It is not their trend, their purpose, or their impulse. It works through Governmental agents, who may be called its priests. But it is not they. It works upon the people, but it is not they. Neither their happiness nor their well-being, nor even the well-being of the Government, is its purpose. Its purpose is Its own Being and Power.

Is it not possible, we may well ask, that militarism will absorb and pervert even some Theosophical teaching that seems to suit its

purposes, for instance, the comparatively recent statements regarding national devas? Most probably one who believes in the existence of such beings will begin by assuming that they are at least well disposed towards the individuals of their nations, even if they are more concerned with the welfare of their nations as producing certain types of consciousness; he will also doubtless credit them with a certain sense of responsibility for the adjustment of the national karma entrusted to their supervision. Otherwise they would be more despicable than monstrous vampires, and should be resisted by the people of any self-respecting nation. But it is by no means a far step for some interested persons to suggest that even such exalted beings may sometimes run amuck at the expense of their human dupes, especially when the morality of a deva is already said to be very different from that of a human being; add to this suggestion the further one that the advantages of Yoga with such a being outweigh all the risks, and we at once have a very plausible corroboration of the Religion of the God-State.

As for the relations of this god with its worshippers, Mr. Lowes Dickinson continues :

It [the God-State] has, in fact, one point of contact with its worshippers : it demands their sacrifice to itself, a sacrifice complete, unreserved, unquestioning ; a sacrifice not only of their lives but of their most passionate feelings, their deepest convictions. They must have no conscience but its, no cause but its. They must be its slaves, not body only, but mind and soul. They are nothing. It is all. . . . Thus, both before and after the period of actual military training, the citizen will be prepared and confirmed for his main business in life by every form of spiritual exhortation. Education will mean training for war. The effort to teach men to think and judge for themselves will be eliminated. For nothing could be more directly opposed than this to the cult of the State and of war. That cult requires what is rather a discipline than an education. The student must be taught dogmatically what the purposes of life are, not permitted, still less encouraged, to examine the question for himself. He must be taught, from infancy up, that he came into the world to sacrifice himself in war ; that the reason of this is a mystery ; and that into that mystery it is blasphemy and pride for the human reason to pry.

Needless to say the morals of the new religion, as enumerated by Mr. Lowes Dickinson, can scarcely be reconciled with Christianity, but after all the Old Testament is so rapidly regaining its influence that perhaps the Gospels as a whole may in due course share the fate of the Sermon on the Mount. The other references to this book all go to show that it deals with many questions on which hangs the future of civilisation—whether it shall be one of brotherhood or extermination ; there is no middle course.

W. D. S. B.