

# ON THE DESIRABILITY OF A NATIONAL INSTITUTION FOR THE CULTIVATION OF THE SCIENCES BY THE NATIVES OF INDIA (1872-1876)

MAHENDRALAL SIRCAR

An account of the following nine items has been given.

1. Lecture by Mahendralal Sircar (14th Feb. 1872)
2. First meeting of the Subscribers to the Projected Science Association.
3. Letter from the lieutenant Governor dated 3rd May , 1875. to Mahendralal Sircar.
4. Report of the Provisional Committee in 16th December 1875.
5. A Sketch of the Scheme of the Science Association by Mahendralal Sircar.
6. A Memorial in Honour of the Prince's Visit (20th December 1875).
7. Joint Meeting of the Subscribers to the Science Association and of the Indian League (28th January 1876).
8. Aid by the Government to the Native Associations for the Cultivation of Science (23rd Feb. 1876).
9. List of Subscribers/Donations.

## 1. LECTURE DELIVERED BY MAHENDRALAL SIRCAR AT A MEETING OF THE BETHUNE SOCIETY HELD IN THE MEDICAL COLLEGE THEATRE ON THE 1ST, AND AT A MEETING OF THE LITERARY BRANCH OF THE UTTARPARA HITAKARI SABHA, HELD AT UTTARPARA ON THE 14TH FEBRUARY 1872.

These are general propositions and apply with especial force to our own country. For a variety of reasons the natives of India have long ceased to take an active part in the world of intellect. In this respect we are as if we were not; the vast tract of country which we inhabit is a perfect blank. Is this state of things to continue? Are the natives of India unfit or incapable by virtue of their organization to enter on the severer duties of life? Are they really incapable of appreciating the revelations of science and of engaging in researches which lead to those revelations? Do the Indian youth really look upon scientific experiments in the same light as they do the feats of the Juggler and the magician, mysterious, incomprehensible, because referable to no definite laws, but the will of the performer? Has this been the result of the education, slight as it is compared to what it might have been, which a most beneficent Government has given at such expense to the children of the soil? I would emphatically say, Gentlemen, no! The Indian youth have shown as much aptitude for and love of science, as the youth of any country in the world. This has been the testimony which our professors and teachers have heartily borne, and as you know them well, it would be useless for me to quote their very words. I would say, as I can say on the authority of personal experience, the Indian youth have an aptitude for and love of science

almost peculiar to themselves – an aptitude and a love nowhere else to be met with.

How is it then that the Indian youth generally are so notoriously apathetic and indolent after their school life is over? How is it that the aptitude for and love of science which I claim for them evaporate just at the season of life when they ought to settle down into stable habit and bear substantial fruit? How is it that we can scarcely name a single individual who may be said to be pursuing with steadiness any one branch of science? How is it that the Medical College of Calcutta, which has been in existence for nearly half a century, and within whose walls some of the noblest of the physical sciences are practically and experimentally taught, has not yet turned out a single student who has even thought of cultivating any of those sciences for which such ample foundation has been laid during his term in the College? What more attractive and delightful as a study than the study of plant-life in all its beauty, variety, and unity in variety? what more instructive and profound than the study of the organization of animals and their wonderful variety wonderously subordinated to a unity of type? What more amusing, any and more immediately useful too than chemistry, a science which has conferred upon men powers more astonishing than has been fabled to belong to magic itself? And yet how is it that none of these sciences has yet succeeded in inviting to its study any one of the numerous students whom the College has turned out, and who, so far as I can state from personal knowledge, used to be actually charmed while being initiated into their glorious mysteries?

I have not spoken of the other sciences, such as astronomy, geology & c., which are supposed to be taught in our schools and colleges for general education. because I know that these sciences are only nominally and not properly, that is, not practically and experimentally taught, and therefore it cannot be expected of students that they should pursue the study of those sciences which they cannot be said to have been taught at all. But in reference to the sciences of which I have spoken above, we have every right to expect that students, who have been initiated into them in the most efficient way, should pursue their study with zeal and industry. The question therefore recurs, how is it or why is it that none has as yet been found to do so? The question, as you must be aware, Gentlemen, has been differently answered by different men; but as far as I have been able to gather, in a way adverse and unfavourable to our youth. Some have sermonized upon our radically degenerate moral nature which is said to be incapable of appreciating and dwelling upon higher pursuits which do not bring some immediate sensual pleasure; some upon our abnormal precocity which soon spends itself away; some upon our defective physical organization, which is supposed to be unequal to sustained exertion necessary for scientific research; and some upon our food, which is deemed to be inadequate to the demands of the system when engaged in hard intellectual work. None of these theories, I would take the liberty most emphatically to declare, has the slightest foundation in fact. The first is a gross calumny, the second is as gross an error, and the two last have only some show of reason, but are nevertheless equally wrong with the second. The energy and zeal and success with which learning-old school learning, be it remembered, with very little of those attractions which characterise the learn of the present day – is pursued in their

own peculiar way by both pupil and tutor, in our toles or indigenou schools and colleges with certainly not very strong physiqes, with generally indiffernt health, and with invariably scanty subsistence, chiefly dependent upon begging and the charity of others, are really astonishing, and this fact ought to be, in my opinion, a complete refutation of these clumnie and misrepresentations and errors.

The true cause, why our educated youth have not hitherto turned to any substantial profit the knowledge they have acquired at school, lies in the fact of want of opportunity, want of means, want of encouragement, and not in a defective moral nature, nor in an easily spent precocity, nor in a badly developed physique, nor in inadequate food. It must not be forgotten that the atmosphere which surrounds our educated young men is the worst imaginable for the development and cultivation of the intellect. They have to contend against deep-rooted prejudices and time-honored customs in every step of their life, which taxes their energies and their purse reminds me of the extreme poverty of the best students which come out of our educational institutions. After their school-days, they have to struggle hard for simple existence. And whoever knows the fabric of our society should not blame the student, who has to relinquish his favorite studies in search after bread for himself and his numerous family, not composed of his own children, but of relations closely and distantly connected, whom he must support so long as he wears the skin of man. And further I must say, though I say with deep regret, that our Government has hitherto afforded no opportunity, nor offered any encouragement to the pursuit of science by the natives of this country. This is not the place, Gentlemen, to dilate upon the functions of Government, especially with reference to the question of education. But I cannot help observing that Government far from being the loser, in spending any sum of money for the spread of general education and for the encouragement of scientific education in particular, cannot but, in the long run and in the ultimatum, be the true gainer. In my humble opinion, Gentlemen, the stability of the British Government depends chiefly, if not solely, upon the spread of education and the encouragement of an intimate knowledge of the Physical Sciences.

To return from this digression: The only class of our young men who are capable, by virtue of their previous education, of cultivating science, is, as we have seen above, the class of graduates of the Medical College of Calcutta and other places. But if we bear in mind the prospects of this class under Government employ, how they must remain eternally degraded and disgraced as Sub-Assistant Surgeons\*, excluded from all independent positions, and with no hope, either by merit or length of service, of improving their ranks – if we bear in mind all this, Gentlemen, we shall not be surprised at the fact of nothing good or great having come out of this class. It cannot be expected that men with heavy professional duties, and with an allowance which barely suffices for the necessaries of life, and which can scarcely permit of the purchase of recent professional works, that such men will find time and to means to cultivate

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\* It is only recently that Government have attempted a show of justice to this useful class of their servants by promoting them to the name of Assistant Surgeon, the rank and the emoluments remaining what they were, and this has been done by a subterfuge, ingenious in its disingenuousness, and of which a liberal and enlightened ought to have been ashamed, (1875).

with any zeal or love any of the sciences they have been taught at college, where any opportunity has presented itself, there some fruit, some splendid fruit, has resulted. Witness the instance of Babu Kanai Lal Dey, who by virtue of his official position has turned out a practical chemist of no ordinary merit. Could Babu Kanai Lal have acquired this remarkable proficiency in chemistry, if instead of having the advantage of the College laboratory, he had to rot in some Mofussil station? witness again the instance Babu Rajendra Lal Mitra, a gentleman, who by his extensive general acquirements and by his special researches in philology and Archacology, has earned a name respected throughout the civilized world. Could he have attained this eminence even with his brilliant intellect, if his independent means had not given his leisure to pursue his favorite studies, and if he had not at the same time the splendid resources of the library and museum of the Asiatic Society of Bengal at his command? I cannot resist the temptation, Gentlemen, of taking this opportunity to tell you that under the auspices of the same Society, another young man is being trained, or rather training himself, in the paths of science, a young man who has already given promise of a bright future awaiting him. The young man I allude to is my beloved friend, Babu Pratapa Chandra Ghosh. But who can doubt that if Babu Pratap Chandra has not independence enough to enable him to take refuge as it were under the shade of the Asiatic Society, his light would have been hid and extinguished in obscurity – in himself?

Gentlemen, I am convinced as every one ought to be, that there is intelligence enough in my countrymen, only that it requires to be properly directed and duly equipped, in order that it may effect what the intelligence of other nationals has done, namely, grapple with the facts of nature, discover their laws, and bend them to our material and moral uses and the general progress of humanity at large. It was under this conviction it was to form an institution which shall supplement our schools and colleges, which shall, in fact, give the required direction and the necessary equipment to the educated intelligence of my countrymen, that I penned an article in the Calcutta Journal of Medicine for August 1869, which being in arrears was not published till the 8th December next. In this article, I attempted to show that the best method, by which the people of India could be essentially improved, was by the cultivation of the physical sciences; that the great defects, inherent and acquired, which were pointed out as characteristics of the Hindu mind of the present day, could only be remedied by the training which results from the investigation of natural phenomena.

The Hindu Patriot noticed the article in its issue of the 13th December, 1869, and gave a hearty welcome to the project. This favourable notice of the *Patriot* as well as the interest manifested towards the proposition by my dearest friends and the readers of the Journal encouraged me to publish the article in a pamphlet form. The pamphlet Government issued from the press on the 20th December 1869, and was first noticed by the Englishman on the 29th next. The notice was short but to the point and very encouraging. Thus emboldened I issued a prospectus setting forth in brief the objects and the requirements of the proposed Association for the Cultivation of Science by my countrymen.

Here I would beg you to bear in mind the character I intend to give to the Institution. Col. Tennant, whose attendance I had solicited at this meeting, writes to me:

I am sorry for this (inability to attend) as I am anxious to know something of your Institution. I believe a knowledge of physical science is an essential part of a liberal education. I do not mean a mere power of using words and phrases but a working knowledge from actual work and the training in reasoning and investigation which results. This is only to be got by Science Schools of which none exist in India unless at Roorkee to a small extent and in connection with the medical schools.

It does not seem to me that your Institution meets this, which I believe, is a primary want of India. It seems to me that little good can come of an isolated man making investigations compared with that which might be expected from training observers, who may work in many places benefitting and enlightening their countrymen.

This, Gentlemen, is the very thing I propose to have. We have, I have told you, no scientific men at all, and we want to create them train men in science. Hence the Institution that I intend to have amongst us will have a different character from all existing institutions. And this is what I said in the Pamphlet. We want, in short, a Normal School, or a Training Academy of Science, if you like. The Institution, when started, will have other functions besides, but this will be, in the beginning and for some time, its chief function. The plan of the proposed Institution, therefore, is simple enough. For division of work, for convenience of instruction, we must have sections, to each of which will be allotted one branch of science or a series of cognate branches. I do not feel competent to decide at present whether we ought to arrange our sections after some logical order, because I cannot stop to discuss the question whether the sciences can, and therefore ought to be, taught in a logical order, as some educationists contend. This much however, I can say, that if we are to adhere to this idea, we shall have to wait long before anything can be taught. A logical order is, indeed, traceable in the sciences, viewed as a whole, but the history of their evolution, as far as I have been able to read it, has not been invariably after this order, And it is fortunate, I should say, that it has not been so; it is fortunate that ancient school-masters did not stick to this idea, or rather that this idea did not occur to them, for then we could only have mathematics and nothing else, and even mathematics could not have reached that perfection which it has done, for its improvement has depended a great deal upon the necessities of the more concrete sciences. But it is unnecessary, I believe, on the present occasion, to enter into the details of the plan of the Institution. They will occupy our attention hereafter, and at our preliminary meetings, if God wills it. We will do nothing without consulting our best scientific men here, and I have every confidence, they will not grudge to lend us their helping hands in this our child's efforts as it were to learn the alphabet of science. I return therefore to the history of the movement.

The press generally, as you are no doubt aware, Gentlemen, noticed the Pamphlet

and the Prospectus with a degree of favour which I did not expect, and for which I cannot be too thankful. Whatever difference of opinion was expressed was in minor points. The importance of an association, such as I have in contemplation, was not only admitted, but set forth with an enthusiasm and an eloquence such as could only proceed when real interest is felt in the project. The enthusiasm was not confined to the press alone. The happy infection spread amongst those for whom, at least for the benefit of whose country, the association was designed and from whom assistance was expected. With his characteristic earnestness and patriotic zeal. Babu Joykissen Mookerjee was the first to come forward with the munificent sum of Rupees one thousand, and simultaneously Raja Kamala Krishna Bahadur subscribed Rupees two thousand. And ever since, subscriptions have been coming on, if not flowing fast.

I would offer no comment upon list of my subscribers beyond the remark that it is a most interesting and instructive document. You will see there names are conspicuous no less by their presence than by their absence.

Four and twenty months have now elapsed, then, since the publication of the Prospectus in the *Hindu Patriot* on the 3rd January 1870, that is, since the appeal was first put forth on behalf of the project, and during the time, thirty-seven thousand rupees have been subscribed, including H.H. the Maha Raja of Patiala's unexpected donation of rupees five thousand and the no less unexpected doubling of the Hon'ble Dwarka Nath Mitter and Babu Janoky Nath Mookerjea's original subscriptions. If we consider the end for which the amount has been subscribed, the time taken in obtaining subscriptions has been too long, and the amount subscribed too small. But considering what was our expectation in the beginning, considering that the cause of science is but ill-understood, even in England, we must reverse our judgement. A quarter of a century ago, nay, ten years ago, who could have ventured to say that a project for a scientific institution would meet with such or any success? Who could have realized even in dream that at the call of an obscure practitioner of medicine, the enlightened and the wealthy of the land, orthodox and heterodox, old and young, nay, that princes of other lands having apparently no interest and no concern in the affairs of Bengal and the Bengalis, would come forward so promptly, so nobly, and so liberally to assist in laying the foundations of an institution, but vaguely understood to be calculated in some future, perhaps distant time, to elevate the physical and intellectual and thereby the social and moral condition of the Natives of India?

But considering the amounts of wealth and the number of wealthy men in the country, who can and ought to contribute, I must say that my project has not met with the success it deserves. My estimate for starting the Association is only a lac of rupees. What is this sum, in view of the solid cash that lies buried in coffers and perhaps underground, ay in view of the amount daily, monthly and yearly wasted, how – one must blush to mention? Only twenty-four persons, including H.H., the Maha Raja of Patiala, have come forward in aid of a scheme which has for its object the establishment of an institute, similar in its aims and objects to the Royal Society, the British Association, and the Academie des Sciences! Is this the number which represents the enlightenment

which this land has begun to boast of? In Calcutta, not to say Bengal or India, there are individuals who singly can found the association and set it a going, in a word, endow it for once and for ever. Mention of names may not look well and I therefore abstain from it. But who does not know the fact as I state it? Who, that takes a real interest in the welfare of this country, does not lament the apathy and the Indifference generally of our millionaires towards any thing that is calculated to improve and elevate its condition? A blind and slavish dependence upon Government and idle and passive murmurings whenever Government fails to accomplish anything, are all that they are capable of. They always shirk the responsibility of any good and great undertaking, and consequently can never have an adequate idea of the privilege of such responsibility and the pleasures attendant thereupon. How long is this state of things to continue? How long must we boast and brag and talk of progress and yet shrink from putting our own shoulders to the wheel? Even at the risk of being deemed egotistic, I must say that no better and more splendid opportunity could present itself to my countrymen for demonstrating their enlightenment and their earnestness for true progress than the project which I have the honour to lay before them. No better opportunity could present itself to them to show to the world that they yet retain the old fervour and zeal and thirst for knowledge of the oldest civilized nation of this globe.

It is hardly necessary for me to formally declare that I have never meant the cultivation of the physical sciences to be a panacea for all the ills incident to human nature, and certainly I never meant that the Association in question was the only remedy I could propose for the evils that teem to my unfortunate country. I am fully aware that the *morale* ought to occupy the supreme place in all schemes of education. But there cannot be the slightest doubt, as the history of the world abundantly testifies that a misdirected *morale* is the source of evils of frightful magnitude. The fact is that no part of our nature should be exclusively cultivated at the expense and sacrifice of the others. And I am laying so much stress upon the cultivation of the physical sciences by my countrymen not because I want the exclusive education of the observational in preference to the purely reflective and moral faculties, but because the observational faculties have been throughout our national life most sadly neglected.

## 2. FIRST MEETING OF SUBSCRIBERS TO THE PROJECTED SCIENCE ASSOCIATION

A meeting of the Subscribers in aid of the projected Science Association was held at the Senate House of the Calcutta University on the 4th April 1875, at 3 P.M. There were present about forty gentlemen. The Hon'ble Degamber Mitter was voted to the chair. The chairman, after explaining the object of the meeting, called upon Dr. Mahendralal Sircar to expound the object of the Association and his *modus operandi*.

Dr. Sircar Addressed the meeting as follows:

Gentlemen, I have taken the liberty to ask you to take the trouble of meeting here, in order that I might fulfil a duty that I have for you.

Full five years are over when I ventured to place before the public a project for the establishment of an association for the cultivation of science in all its departments by the Natives of this country, and it is but natural that both you, who have come forward so liberally in aid of the project and the public in general, who have been taking so deep an interest in it, should be impatient to find the projector taking no steps to carry his own project into execution. This impatience assumed a substantial form the other day in the shape of a letter to the *Hindoo Patriot* from a well-wisher of the project, and who, I am glad to say, is now a subscriber.

The supineness of the projector appeared in marked contrast to the activity of Father Lafont in building a spectro-telescopic observatory, and the rapid success which the Rev. gentleman's appeal to the public for funds met with.

I did my best to explain the reasons of my apparent inactivity, but the tide of impatience grew stronger, till I myself felt the necessity of doing something.

At this stage an impetus comes from an unexpected quarter. His honor, the Lieutenant-Governor, animated with an ardent love of the sciences, full of zeal for the introduction of science-teaching into our educational institutions, accidentally hears of my project, and becoming acquainted with its scope and objects, so far as I could in a short conversation render them intelligible, asks me to start the Institution, and His Honor goes so far as to hint that some aid might be granted from Government.

Gentlemen, you are aware that one characteristic of my scheme is that we should endeavour to carry on the work with our own efforts, unaided by Government, or perhaps more properly speaking, without seeking its aid. Now this does not mean that we will not accept any aid from that quarter, if it comes to us unasked, and unhampered with conditions and restrictions, excepting the all important condition of the continuance of the Association. Let me not be misunderstood. I want freedom for the Institution I want it to be entirely under our own management and control. I want it to be solely native and purely national. And I believe, Sir Richard temple will be the first to appreciate the spirit in which I utter this; and that His Honor, far from being desisted from granting us the contemplated aid, will come forward as generously with it, as His Honor has done with reference to the spectro-telescopic observatory of Father Lafont. Government is anxious, and the Lieutenant-Governor is particularly so, to introduce the teaching of science into the educational institutions of the country, even into the vernacular schools. Surely Government ought to look with favour upon an Institution whose object is to continue the work of those institutions to a fuller and higher state of development. One of the great obstacles to the introduction of science into our schools and colleges is the paucity of indigenous teachers. Now the Institution, such as I want with your aid to establish, will in time furnish abundance of teachers, and thus be a great help to Government in carrying out its purpose of diffusing a knowledge of the sciences. Surely then if Government ought to come forward in aid of the institution I have in contemplation. For it is then only that Government can demonstrate its sincerity in the matter of scientific education.



Now Gentlemen, as to the plan of working the Association, the great and chief, or as I should have it, the sole function of the Association will be pure science-learning and science-teaching apart from all bread and butter, or as I believe, you would like better, rice and dal question. The association cannot take the responsibility of holding out promise of any opening for those who work within its walls. Though I believe that with the acquisition of proficiency in a scientific subject, the demand for such proficiency will, in the course of time, arise. There is at present a sad deficiency of scientific culture amongst our countrymen. The deficiency has not, and can never be met in schools, even if the utmost efforts were made by Government for the most efficient teaching of science in those schools. In school pupils can never rise to the state of practical workers in science, so as to be able to carry on independent investigations, not because of any fault in the psychology of the pupils themselves, but because such a thing is impossible *in statu pupillaris*. Man must continually be at a subject, observing and experimenting, before he can acquire that knowledge of it which will enable him to feel his own deficiencies, and the deficiencies in the branch of science which he has made his speciality – before, indeed, he can engage with any hope of success in researches which will improve both himself and his science.

Now Gentlemen, for want of such men here, Government has to bring out men from England, whenever any necessity arises for carrying on investigations in any subject, and even for professorships in its educational instructions. Whether, then our association will be able to furnish such men, Government will accept their services, I cannot venture to say, but then there will be at least no excuse for Government to order out men from England at necessarily heavier expense.

But will the association ever be able to produce men of the character I describe? Have we materials wherewith to start the association? We have materials, though necessarily very poor both in number and quality; and it was this, in fact, which, in my mind, was the necessity for carrying my project into execution, and which, from the very beginning, I have been making a clean breast of. It is preposterous to think that I am going to start an association just as Sir David Brewster did the British Association, and Count Rumford, the Royal Institution. Sir David Brewster and Count Rumford found men already in the field, ready to work in a fresh direction, and it was only to facilitate their communications with each other so as to give a greater impetus to original investigations, and to spread a knowledge of science as far as advanced to the masses, that they founded their respective institutions. Mine cannot in the present, at least, make any approach to this ambitious character, though I am confident that if it succeeds, and I do not see any reason why it will not, it will necessarily grow into the combined magnitude and importance of both.

How then do I begin to work? Do not be astonished, Gentlemen, if I cannot give you even a sketch of my plan. If we had men ready to work, I could have given you a plan, and a most elaborate one. But just as in the matter of subscriptions I had to go about and beg and entreat, so in the matter of workers for the Association I shall have to go and hunt about, and beg and entreat. I shall have to discover, and possibly

to invent men. But have I indeed no plan? Of course, I have. It is, however, necessarily to a certain extent theoretical as it were, and can only be matured and embodied into a practical reality in time. As a matter of course I must have sections in the Association, representing the various branches of science. For the present I have in view the following branches:

1. Mathematics.
2. Physics proper consisting of
  - (1) Mechanics of solid and fluid bodies, including heat.
  - (2) Electricity and Magnetism.
  - (3) Optics, including Spectroscopy.
  - (4) Acoustics.
3. Chemistry
4. Biology, This includes a number of branches, but the main divisions are Botany and Zoology.

There are other subjects of very great importance and for which we must have sections, such as Meteorology, Geology including Paleontology, and Astronomy.

For each of the sections we require a head worker, as it were, and instruments and apparatuses in sets, so that under the head worker in each section we may have a few young men to learn the subjects practically, and you can easily imagine what the cost of all this is likely to be. But, Gentlemen, with the funds at present available, we cannot work all the sections. In fact, we can work only two or three at the most. I am not yet in a position to say whether we shall succeed in getting men who will work steadily for nothing, or for merely the song of praise. If we do not which will most probably be the case, that fact will not deter us from commencing work. I have got the assurance of a few friends, zealous in the cause of science and earnest in the welfare of their country, that they will take up subjects, and thus give a start to the Association. My young friends Babus Pratap Chandra Ghosh and Pran Nath Pandit have promised to divide among themselves general physics Rai Kanai Lal Dey Bahadur will take up chemistry; Babu Peary Mohan Mookerjee of Uttarpara will take up Meteorology; and your humble servant will be very glad to take charge of the section of Physiology. But, Gentlemen, I am sanguine of more funds coming in. This week's list is most encouraging, and in the eye of faith, which has been well said to be the evidence of things unseen, I can see that the happy contagion will spread till it permeates the whole community, converting every soul into a lover of science and coming forward with the sincerest devotion to her worship.

After the delivery of the address by Dr. Sircar, the following resolutions were proposed and carried unanimously:

Moved by Babu Rajender Dutt and seconded by Babu Omesh Chunder Dutt.

1. That this Meeting has heard with great interest the exposition of the objects of the proposed Science Association by its projector Dr. Mahendralal Sircar, and is of opinion that immediate steps be taken for the establishment of the Association.

Moved by Babu Dijender Nath Tagore and seconded by Babu Pran Nath Pandit.

2. That with a view to urge the claims of the Association to public support on an organised plan and to concert other measures for its due inauguration a requisition be addressed to the Sheriff of Calcutta requesting him to convene a Public Meeting of the inhabitants of the Town and its vicinity on an early day for the consideration of the subject.

Thanks were then voted to the chair and the meeting separated.

### 3. LETTER FROM THE LIEUTENANT-GOVERNOR

The Shrubbery, Darjeeling.  
May 3rd, 1875.

Dear Sir

The Lieutenant-Governor desires me to acknowledge your letter of the 8th ultimo explaining that the meeting intended to be held on behalf of the Scientific Society had been postponed, and that it is proposed to hold a meeting at some future time, or whenever His Honor might be in Calcutta, and expressing your hope that he will accord a general support to the Society's operations.

I am to state in reply that the Lieutenant-Governor continues to feel much interest in the progress of the Society as constituting a spontaneous and unaided effort on the part of the natives themselves to promote the spread of practical science among the people of Bengal. The Government indeed sympathizes with any aspirations which the natives may have in this respect, and will itself do what it can in this direction. Better and more efficacious still, however, will be the exertions which educated native Gentlemen like yourself and others, may put forth of their own free will for the improvement of their countrymen in scientific knowledge.

Science may be pursued for its own sake in the abstract, and for the mental pleasure it affords, and such pursuit is most laudable. There doubtless are many native gentlemen in Bengal who will thus pursue it.

But Science also may be made to add immeasurably to the national wealth and so to afford lucrative employment to numberless persons according to their qualifications and acquirements. The field, which thus seems to open itself in Bengal, ought to give encouragement to every Bengalee who is anxious to earn his won livelihood. When we reflect upon the demand which is springing up in all parts of Bengal for land surveyors, for civil engineers, for trained mechanics, for mining engineers, for geological surveyors, for veterinary practitioners, for practical botanists, for foresters, for gardeners of a superior description, for persons versed in scientific agriculture, for engravers, for lithographers, for carvers in wood and stone, architects, for medical men, for practical chemists, and for many other sorts of men possessing scientific and artistic culture, we see what a favourable vista is beginning to display itself before the rising generation, at least in this part of the country. The more such persons in numbers and abilities, the more will employment expand. Thus one cause will react upon the others. The fact of trained men being available on the spot will render enterprise profitable; and the success of such undertaking will cause occupation to offer itself to those who seek it.

Moreover, by these means not only will many new industries be introduced into Bengal, but almost every one of the old established arts and manufactures of the country may be rendered more useful and remunerative than at present.

It is probable that our educated youths will betake themselves more and more to such pursuits when they shall see fully, that they already are beginning to perceive, that the two principal of the existing professions, namely, the public service and the bar, are fast becoming over-stocked. Let anyone calculate on the one hand the rising numbers of highly educated young men who are yearly issuing forth from our colleges and schools – and on the other hand the comparatively small number to whom the public service and the bar can at least supply the means of livelihood, and he will observe at once that the young Bengalees, who are coming forward year by year, must search for other walks of life, wherein to exercise their talents and industry. The Lieutenant-Governor hopes that they will turn by degrees at first, and afterwards rapidly, towards the other and varied pursuits indicated above.

Now it is for the encouragement of scientific pursuits among your own countrymen, that the Lieutenant-Governor understands your Society to be instituted. However much the Government itself may move in the same direction, there is more than enough room for a co-operative movement by the natives for this object. Such a movement on your part will be the more valuable, will be the more powerful in its moral effect, if it be advanced to a successful result, by your own efforts alone, without any help from Government.

However much the Government may sympathise with your views generally, your work will have all the more vitality and abiding reality, if its details be settled by yourselves without any specific guidance from the State.

From what the Lieutenant-Governor had seen (greatly to his satisfaction) of yourself

and of several of your supported he has every confidence that you will be able to elaborate plans calculated to redound to the material benefit of your countrymen for whose welfare you feel a justly patriotic regard.

Sir Richard Temple will therefore not attempt to offer to your Society any particular suggestion, but will content himself with assuring you of his cordial and earnest wishes for your practical success.

Your truly,  
F.P. STAPLES, Surgeon Major,  
Officiating Private Secretary.

To  
MAHENDRALAL SIRCAR, M.D.

#### 4. REPORT OF THE PROVISIONAL COMMITTEE

The Committee met at the Sanskrit College Library Room, on Thursday, the 16th December, 1875 at 3 P.M., the Rev. E Lafont, in the Chair, and after some discussion on the scheme submitted by Dr. Sircar, adopted the following report:

1. We are of opinion that an association for the cultivation of science by the natives of this country will be of incalculable benefit not to them alone, but may be ultimately to the world at large. We therefore strongly recommend that steps be taken at once for the establishment of such an Association.
2. We are aware that to found and endow such an Association that shall be complete as an Institute of Science and be in full working order, it will require a great deal more money than the Project has hitherto been able to command. We are convinced, however, that the amount already subscribed will help in making a good beginning. We therefore strongly recommend that instead of waiting for a full-fledged Institution, a beginning be at once made with the sum subscribed, contenting ourselves for the present with only three sections, representing General Physics, Chemistry, and Physiology, which, be it remembered, are the only branches of science which have received permanent professorships at the Royal Institution of London.
3. To work the three sections, it has been estimated by our Chairman that about Rs. 30,000 will be required for books, instruments, and furniture, and by Babu Nilmani Mittar, a member of this committee, that about Rs. 50,000 will be required for a building consisting of a lecture-theatre to accommodate about 300 persons, and three adjoining rooms to serve as laboratories, and for a piece of land about a couple of biggahs in area whereon to erect the building. The monthly expenses of the three sections will be about Rs. 500 – 300 being required for the three workers, and 200 for experiments, for the publication of transactions, and other current business.

4. It will be seen that books, instruments, and that we shall have to provide for the monthly expense of Rs. 500 from other sources. For the present we would recommend that this sum be raised from monthly subscriptions, the minimum of which we would fix at Re. 1 a month, which will enable many to come forward in aid of the Association who could not otherwise do so. At the same time we would invite larger subscriptions from our enlightened millionaires who have already so very nobly come forward with donations to found the Association, and who would, we are sure, be very glad to help on its continuance after it has come into existence. In this way, we believe it would not be difficult to raise the sum of Rs. 500 per month, and even to have it guaranteed for a period of five years.
5. If the Association could be made to run an existence of five years, and if it can go on showing good and useful work, it will certainly command more and more sympathy and support, and those who are in favor of the project but who, under an idea that it is not likely to be carried out, have not yet come to its aid, will do so then all the more readily and zealously.
6. We would recommend the establishment of the Association particularly at this auspicious time of the visit of H.R.H., the Prince of Wales, inasmuch as we believe, it would be a most fitting memorial of that visit, towards which all alike, Native and European, high and low, may unite to contribute, whereby they will be showing their loyalty in a two-fold aspect, loyalty to their sovereign and loyalty to enlightened progress. Sir Richard Temple has already evinced the most lively interest in the project, and it will not be too much to believe that Lord Northbrook will do the same. And when the Rajas, Maharajas, and Princes, who will gather in this our Capital to honor the royal visitor, will learn this, they will, if we are not much mistaken, very gladly join, as one of them the Maharaja of Patalia has already long ago joined, in founding and endowing an Institution which, while it will be the most fitting memorial of the Prince that can be conceived, will grandly fulfil the mission of England to India, the restoration and elevation of the people of India.
7. In view of the circumstances that favor the immediate execution of the Science Association project, we would recommend that measures be taken for the collection of the subscriptions, for sending out an indent of books and instruments, for selecting a site and drawing up a plan and estimate for the building, and for inaugurating the Association under the beneficent auspices of H.R.H., the Prince of Wales, the future King of England and Emperor of India.

#### 5. A SKETCH OF THE SCHEME OF THE SCIENCE ASSOCIATION MAHENDRALAL SIRCAR, M.D.

1. The object of the Association is to enable the natives of India to cultivate Science in all its departments, with a view to its advancement by original research, and (as it will necessarily follow) with a view to its varied applications to the arts and

comforts of life.

2. In none of existing educational institutions of this country, with the exception to some extent only of the medical schools, is any provision to be found for the thorough and practical teaching of science. Even if there were, it is not in school that students can cultivate science, properly speaking. Science can only be cultivated seriously by the steady and uninterrupted application of the energies of the mind, and this not only requires a knowledge of the elementary truths, but an absolute command over one's time. The capacity of the natives of India to master these truths has been subjected to practical tests, and found not only not wanting, but admitted by competent authorities to be apt and ample\*; well worth being utilized towards the cultivation and advancement of science for the benefit not only of India but of the world at large.
3. The physical sciences are eminently observational and experimental, and can only be studied by the help of instruments to aid and direct observation and experiment. These sciences have so far advanced that pure observation, without a previous training in aided and experimental observation, is in present day hardly of any use in the study of those sciences, far less in their advancement. From books alone

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\* It is well worth your while to enquire what there is in Christianity that has placed us in the van of nations, and what there is in Hinduism, that has caused you to remain stationary, even if you have not retrograded from the state of your forefathers in the time of the Maha Bharat.

Is it a decline of intellect?

I think not, and I assume to myself the privilege of speaking with some little authority on this point. I was for thirteen years connected with the Educational Department of Bengal, and has ample opportunities of forming a correct opinion on this subject.

Many years ago, more than a quarter of a century, shortly after my joining the Medical College, of which I was the virtual Principal during probably the most trying period of its history, the late Mr. William Wilberforce Bird, when Deputy Governor of Bengal, told me that he wished to give a valuable prize to the best writer of an essay in English on an important branch of physical science.

He wished the competition for his prize to be confined to the native students of the College, on the ground that, as they wrote in a foreign language, the contest would be an unfair one if not so restricted.

There was then a tolerably large class of English students in the Institution.

I intimated to him my belief that he was mistaken in his view of the matter, that, so far as my close and constant observation of the students enabled me to judge, the native pupils had nothing to fear from their European and Eurasian rivals; and that I should be much surprized if one of them did not carry off the prize.

With some misgiving, Mr. Bird consented to throw open the prize to all comers.

The race was keenly contested but a Hindu won by a good length, and thus settled, I believe, for ever the question of class and national distinctions in intellectual contests in Bengal.

Since that time, the question has been tried in a higher court, before a more exacting bench, and in the presence of a larger audience – with the same result.

My esteemed friends, Drs. Chuckerbutty and Bholanath Bose, and other Natives of India who have visited England, and studied in the most advanced schools of our time, have competed on equal terms with the English students of those institutions, and in medicine and Law have obtained a fair share of the highest distinctions, showing that they have not degenerated from their ancestors of bye-gone ages in breadth and vigour of intellect. I know that they have left behind them in the minds of those in Europe who pay attention to such subjects, a high estimate of the mental calibre of the Hindus. It is this estimate of the native, which at the present moment guides the views of some the Statesmen of the day, as to the larger share in the work of the Government of this – their – country which should be given to your fellow – countrymen. – Dr. Mouat's Address at the Canning Institute, Howrah, 29th April 1868

nothing practical can be learnt, though, of course, I do not go with the late Prof. Agassiz in asserting that they are hindrances rather than helps. I believe they are the first requisites in the beginning of the study. Books and instruments are then essential to a proper prosecution of the study of the sciences.

4. An elementary education of the mind in the principles of all the branches of science is necessary as a healthy preliminary to the successful cultivation of any one branch, not only because of the correlation and interdependence of the various branches, which necessitates an acquaintance with one in order to the proper understanding of the others, but also because of the usefulness of such a training as a safe-guard against prejudices, idols of the den, as Baeon calls them, that are apt to arise from the exclusive pursuit of one study. As matters stand, it is necessary, therefore, that the Association should provide for such elementary teaching, in addition to its functions of organising original investigations. The extent of the field covered by each branch of science is so vast, that it is not possible for a single mind to master the details of all, for less to extend their boundaries. A single branch is more than sufficient to form one man's speciality. This necessitates in the serious cultivation of science, a division of labour, a differentiation of function or duty. It is necessary, therefore, to have sections in the Association devoted to the branches which ought to be separately studied for their due cultivation.
5. It is not possible to give the exact number and names of the sections which a perfect Scientific Institute ought to have. The British Association had very often to make changes in this matter. The details and the development might well be left to competent persons and to time. I can give you here only a few general ideas on the subject. We must have sections for General Physics and Chemistry, as these constitute as it were the backbone of Science, and without them no other branch can be studied with any advantage. Astronomy was hitherto only a branch of General Physics, but recent spectroscopic discoveries have brought it, very partially indeed, in the domain of Chemistry.

It is however such a vast study in itself that it has been, since man first began to pry into the heavens, looked upon as, and elevated into, a separated branch of human knowledge. We must therefore have a section for Astronomy. It is, if I may say so, peculiarly an Indian Science and ought to be cultivated by our youth. We have next of consider Biology, which as you know is divisible into two departments, the Science of Plant-life, and the Science of Animal life – Botany and Zoology. Physiology is common to these two life-worlds, but it has been found advantageous in very recent times to constitute it into a separate branch or “discipline,” confining the functions of the former chiefly to systematisation and classification of their respective subjects. In order to cultivate these sciences properly, we much have sections devoted to them separately. There is another sciences which has, by calling up the past history of the globe in which we live, revolutionised our ideas of time, and introduced us into the threshold, as it were, of the genesis of other



worlds. This is Geology, and in one sense, it is one of the most important of the sciences. An Institute of Science would be incomplete indeed which has no provision for the cultivation of this science.

6. Confining our attention, then, only to the sciences I have enumerated, and without minding for the present their varied ramifications, each of which is ample enough to claim a section to itself, we caught to have at least seven sections in our Association, namely.
  - (1) One for General Physics.
  - (2) One for Chemistry.
  - (3) One for Astronomy.
  - (4) One for Systematic Botany
  - (5) One for Systematic Zoology
  - (6) One for Physiology
  - (7) One for Geology.

As we progress, necessity might certainly arise for splitting up our sections, and for adding some new ones. But this need not trouble us now.

7. For each of these sections I would have a head worker, selected from among the graduates of our colleges, of the Calcutta Medical College in particular, who should take charge of the section, devote himself entirely to the prosecution of the experimental study of the science assigned to it, by the aid of books and instruments placed at his disposal, and under the guidance of men who have made the subject their speciality. In the last statement I have my eye chiefly upon the European *savant* in the Metropolis, and it may be said that the statement may after all prove to be but a groundless assumption. I cannot believe this. In our Rev. Chairman we have already an eminent Physicist who has volunteered his services to the Association. And we may fairly hope that we shall receive similar help from other celebrities in this our child's effort to learn the alphabet of science – to suck the nectar of facts of which they are full. Out of the abundance of the heart the mouth speaketh and the fulness of scientific knowledge makes men eminently communicative and fraternal. And once we are admitted in the commonwealth of science, our color and our creed will be no bar to our enjoying the privileges which she distributes, open-handed and free, to merit, and merit alone.
8. In seeking help from Europeans for the guidance of our workers, I might be charged with departing from the quintessence of my scheme, which is to make my countrymen, in the matter of science-cultivation at least, self-reliant. I have not

forgotten what I said when I first laid my project before the public – “And we wish that the institution be entirely under native management and control. We say this not out of vanity, but simply that we may begin to learn the value of self-reliance in matters in which we may do it without any serious risk.” I say I have not only not forgotten this, but that is the point which still I insist upon. But let me not be misunderstood. We must admit we have to learn even the very rudiments. It is true that with intelligence it is quite possible to master the elementary principles of science unaided, that is, except with the aid derived from books and instruments. This is, indeed, the way in which professors that newly arrive here generally manage to qualify themselves; and there is no reason why a similar process may not succeed with our workers. I certainly believe this. But I also believe that kindly aid occasionally received from those who are masters of particular branches will greatly expedite our progress. Our own shortcomings and our modesty will naturally provoke us to seek such aid, and seeking, I doubt not, we shall find, and finding we shall profit.

9. If we are happy in the selection of our workers, it is my firm belief, they will succeed, in the course of a year, so to master their respective subjects that they will be able to deliver systematic lectures in them. The necessity of having to deliver lectures will involve such a course of preparation as will point out to them their own deficiencies, which, as a matter of course, they shall have to make up. In this way, it is not too much to believe, they will gradually be led to make original investigations, some of which at least will be successful and lead to important results.
10. When our workers become competent to teach in their respective subjects, which, I have assumed, is possible within a year, then we shall be able to institute two series of lectures on each subject, one general for the general public, and the other special for the instruction of a few who would like to form themselves into a class to learn the subjects. In this way we shall have in each section under the head worker, a few sub-workers as it were, who, by virtue of the training they will receive, will soon become workers in science themselves, and will be of help to the Institution as well as to the community in general. In this way a taste for science will soon be disseminated among the general community, and science will then count her votaries by thousands and hundreds of thousands, instead of scarcely, as now, by units. And then India of her own accord, unaided and unsolicited, will equip and send out scientific expeditions, as civilised governments under pressure are now doing. No part of the world requiring exploration will be without explorers from India. Not a single phenomenon can occur, either in the heavens above or in the earth below, which can be predicted beforehand and the observation of which might be of scientific interest and importance, which India will not send her scientific men to observe and record. Is this a dream? Yes, it is; but it is one of those dreams which can be willed into a reality. Give me money and I can show you that, though yet a dream, it can be made as much a reality as anything in nature.

11. All the sections I have enumerated, and even more, are workable if we had only funds to most the expenses. There will be no want of workers if we could only provide for them, and we must provide for them, that is, remunerate them properly, if we want to get good, steady work out of them. I have no faith in unremunerated workers. We must not forget men have stomachs as well as minds. The mind must have leisure to think that it may think with any advantage, and this can only be secured by providing for the demands of the stomach. In Europe and America this leisured thinking is secured largely by state and other appointments. In our country such appointments do not exist, and it is chiefly with a view to supply the deficiency and the desideratum that I have been striving to found this Association.
12. What then is likely to be the expense of setting up and working the sections mentioned above? This resolves itself into.
- (1) The expense of purchasing books and instruments once for all at present.
  - (2) The expense of building a local habitation.
  - (3) The expense necessary for the remuneration of our workers, and
  - (4) The expense that will be incurred for carrying on experiments and other business.

In other words, first of all we shall require a certain lumpsum for a building and books and instruments, and secondly, we shall have to meet a regular periodical expenditure to carry on the working of the Institution.

13. As roughly estimated by our Rev. Chairman, the cost of the requisite books, instruments, specimens, & c., will be about a lac of rupees for all the sections, and about Rs. 30,000 if we would work only three sections, Physics, Chemistry, and Physiology. Again, as roughly estimated by our engineer friend, Babu Nilmani Mitter, whom we fortunately have on the Committee, a building consisting of a lecture theatre to accommodate about 300 persons, with suitable rooms adjoining to serve as laboratories and museums to all the Section, together with land about a couple of biggahs in area, will cost at the lowest over a lac of rupees, but for the three sections mentioned above about Rs. 50,000, if the work be undertaken by ourselves, and not by contractors. The remuneration of the workers will be at least at the rate of Rs 100 a month per worker; and the expenditure on experiments and establishment will be at the rate of Rs. 50 per section. In other works, besides two lacs for all the sections (or Rs. 80,000 for the three), that will be required at once, we shall have to provide for a monthly expense of Rs. 1000 (or 500).
14. The amount subscribed is in round numbers Rs. 80,000. This sum, which from the character and position of my subscribers I assume to be realisable, exactly meets the expenses that we shall require for books and instruments and building

if we start with three sections only, but will do for books and instruments alone, if we will have all the sections. And if we spend it in this way, we shall have nothing in hand to enable us to meet the working expenses of the Institution, which as we have seen, amount to the pretty large figure of Rs. 1000 or 500, according as we work all the sections or only three, every month. Whence or how to derive this sum? By one of only two possible ways. Either by inviting fresh lump subscriptions or donations of an amount, which, when invested in Government Securities, will yield Rs. 1000 (or 500) monthly, or by inviting monthly subscription. It would be much better if we could do the former. My impression, however, is that unless we begin actual work, it will not be possible to get a ready response to fresh appeals for subscription of either description. There is a growing impatience on the part of the subscribers and the public to see an actual beginning made; at the same time there is a manifest reluctance on the part of the well-wishers of the project to come forward as they would, unless something tangible and visible is shown to inspire confidence that we are in earnest.

15. If we are in earnest to make a beginning, and if we actually do make a beginning, and thereby show the public that we are really in earnest, then I am sure the Institution will not have to languish from want of support. You can safely recommend one thing to be done, namely, to open the Association with only three sections, that is, for General Physics, Chemistry, and Physiology. In this case the monthly expenditure will come down from Rs. 1000 to Rs. 500, which might without difficulty be raised from monthly subscriptions, provided we fix the minimum at Re. 1 a month, which will enable many to befriend us. This will not of course preclude our thankfully accepting higher subscriptions, which I am sure will be volunteered to us, and even guaranteed for a fixed number of years, I should think, at least, five. Babu Joykissen Mookerjee, who was the very first to come forward, of his own accord, in aid of the project, has often told me that if he finds the Association in working order, he will be very glad to give a monthly contribution of Rs. 25; and I am sure there will be others who will show similar acts of enlightened liberality.
16. The Lieutenant-Governor of Bengal is in favor of the project so far as I have been able to make it intelligible to His Honor. His Honor's great leaning is, however, to the teaching of practical science. The scheme of the Institution I want to establish, and as slightly sketched above, does not apparently provide for such teaching directly; but with systematic instruction in the principles of the physical sciences, and with original investigations in them, will be bound up all practical education in practical science. In the abstract, science may be said to have two sides, theoretical and practical; but in actual fact, the two sides are so contiguous or rather so blended one with the other, that in the practical study or experimental cultivation of the sciences, it is hardly possible to keep the distinction. The distinction is without a difference, or with the insignificant difference of scale and magnitude only. What the philosopher does in the closet and the laboratory, the practical man does in the field, the mountain, & c.

17. The primary object of the Association being the restoration and elevation of the people of India to the rank among nations which they have lost and which they might be made to attain, and which they therefore ought to strive to attain, it is quite superfluous to point out their obligations towards the furtherance of such an object. Not to unite in establishing an Association calculated to benefit them so largely and importantly would be a serious neglect of duty not only towards themselves, but to the providence of God which has gifted them with such capacities of mind, and placed them in circumstances calculated to develop those capacities to the best advantage. The scheme I have submitted is capable of indefinite development, and its success depends, as I have over and over said, upon one thing – the one thing needful in all sublunary matters-money. And is money wanting in this land of “barbaric pearl and gold? Is the inclination to spend money wanting? Certainly not. All that is wanting is that we should learn the right use of our “pearl and gold” that we might obliterate for ever the epithet “barbaric” from the poet’s line.
18. Without entering into a philosophical discussion of the functions of Governments, we may rarely assume that the tendency of all the Governments do ought to be towards the good of the Governed. This must be the *raison-d’etre* of all Governments that are not professedly arbitrary and despotic, and even Government of this latter class cannot continue long in power, if they glaringly fail to fulfil this function. Whatever therefore tends to the good of the community at large the Government of that community must strive directly or indirectly to promote. This is more imperative when the Government exists not from choice of the community, but by sheer right of conquest. A despotic Government that professes to rule by the arbitrary fiat of the ruler might not recognise such a sense of duty or might even spurn it. A Government that professes to rule by the laws of justice, and by all the requirements of advancing civilisation, ought not merely to foster such a sense of duty, but cultivate and develop it. We are fortunate to be under such a Government as this, and therefore we sanguinely except aid from it.
19. I have not only a right to except aid from all my countrymen and from our Government, but virtue of the right inherent and eternal in the very constitution of Creation, whereby every man can ask aid in any cause which tends to the good of living creature, I have a right to except aid from all countries and peoples, especially from those which are enjoying the advantages and privileges of the cultivation of science. And I doubt not, if we can send a proper representation, such aid will be forthcoming.

#### 6. A MEMORIAL IN HONOR OF THE PRINCE’S VISIT

(The Hindoo Patriot, 20th December 1875)

There is a general feeling among our countrymen that the visit of His Royal Highness the Prince of Wales should not literally end “in smoke.” The preparation

made by the Town Committee for the reception of His Royal Highness and the illumination of the city in his honor has been planned on a really imperial scale; if Mr. Hogg succeeds in carrying out his programme, as to which we have however no misgivings, considering the resources at his command and the unbounded energy he possesses, a sight will be presented in the metropolis of British India on Christmas Eve, the like of which had never before been witnessed in any eastern city, ancient or modern. The Native Community are active in making their preparation for an entertainment to His Royal Highness. This is the only city in the empire with a mixed population, in which the native residents have invited His Royal Highness to a special entertainment, and it is their intention to get it up in completely oriental style. His Royal Highness has seen such more grand and magnificent things, designed by western ingenuity and art than anything we could show, but it is the humble wish of the entertainers at the Belgachhia Villa to make up for such grandeur with the novelty of the spectacle. Be that as it may, all that is being done will either end in smoke or in temporary glitter. Is nothing to be done to commemorate the auspicious event of His Royal Highness's visit to the capital? In Behar an Industrial School, in Benares a Hospital, and in Bombay a Leper Asylum will be established in honor of the visit, but what will be done in Calcutta? That liberal and public-spirited zemindar, Babu Joykissen Mookerjee, started the project of a Native Serai; the leader of the Progressive Brahmas has proposed a public Hall to be called after the Prince's name for social re-unions of Europeans and Natives; Sir Richard Temple set on foot a scheme for the establishment of Zoological Gardens. We wish success to all, but we believe the projector of the first is willing to merge his scheme in another, having for its object the cultivation and promotion of science. He had promised Rs. 5000 towards the establishment of a Native Serai, but if he should find that the public would support an institution for the advancement of science, he might, we think, be induced to divert his contribution of Rs. 5000 towards that purpose. Now there has long been before the public the project of an Association for the cultivation of science by natives of this country started by Dr. Mahendralal Sircar, a lover of science and his country, and as it has been considerably furthered by munificent contributions already promised, we think there is a good chance of success for it, if the people will put their shoulders to the wheel and begin to work at once. A Temple of Science under the auspices of Sir Richard Temple would be a fitting memorial of the visit of the eldest son of Prince Albert, to whom the cause of the advancement of science in the latter half of the nineteenth century has been so greatly indebted. It would be a memorial, the glory of which would increase with the increase of years. It would mark a new era in the history of British rule in India, and nothing could be more auspicious than to connect it with the advent of the future Emperor of Hindustan.

We are glad to observe that the promoters of the projected Science Association are fully alive to the happy conjunction of events at the present time, and are prepared to take advantage of it. The Provisional Committee, appointed to draw up a scheme for the organization of the Association, have prepared a draft report, which we give below with a view to invite general attention and support.

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So far as the scheme goes, it is good enough. But we would go further. We would solicit the co-operation of Government. Sir Richard Temple is we believe willing to support the institution, and the Government aid cannot take a better shape than the foundation of professorships for the teaching of science to those who may wish to cultivate it through the medium of this Association. Such professorships were contemplated in the education charter of 1854, and when the State in England gives grants to the Royal Institution of London, we see no reason why similar assistance should not be given to a like institution in Calcutta. Father Lafont the most utmost zealous Votary of Science in Calcutta, has promised to deliver lectures, and if Government lands the services of some of its professors for periodical lectures, and encourages the students by founding some substantial exhibitions, a new era will dawn upon the cause of education in Bengal. At the preliminary stage we would give the institution a two-fold character, that is to say, we would make it a school of teaching and a society for study and investigation. the beginners should be regularly instructed in the principles of science as they would be in a class-room, and the more advanced students should have facilities afforded to them for independent study and investigation. These might also be invited to deliver popular lectures on particular branches. These lectures and the results of independent research and investigation might be published in a Quarterly Journal of Science, which we would like to see established in connection with the Association. Once sufficient impetus is given to the teaching of science, an organization might be made for examining the students and conferring science degrees upon them. In other words this Association might be raised to the status of a University of Science with the necessary charter and regulations. Here is an object, the furtherance of which we submit is worthy of the highest ambition. It cannot however succeed without a liberal aid from Government. If Sir Richard Temple, the first Governor of Bengal who has shown a zealous interest in the cause of science education in this country, will lend a helping hand, it will both deserve and command success. The association of His Royal Highness the Prince of Wales' name with it ought to be a powerful element of success. To such an imperial memorial of His Royal Highness's visit we believe we may confidently appeal to the native princes and chiefs, who have honoured the metropolis with their presence on this occasion, as well as to all public-spirited noblemen and gentlemen throughout the country for liberal support.

BABU RAJENDRALALA MITRA, in seconding the resolution, said, that there seemed to be a difference of opinion as to the propriety of immediately establishing an institution like the one contemplated by the resolution moved by his venerable friend, Raja Ramanath Tagore. Some were disposed to think that the time had not yet arrived for such an undertaking, while others thought that it had, and the members of the Provisional Committee were unanimous on the subject. For his part, the Babu was quite indifferent on that score. He did not care whether the time had come or not. Time never came to the sluggard, while the active and energetic could always take it by the forelock, and force it to appear. Whatever may be the evil consequences of a premature sowing of paddy, there need be no apprehension of evil from trying to force in civilizing institution before it was wanted. Had such scruples stood in the way of that truly great and good man, Lord William Bentinck, there would never have been

founded that noble institution, the Calcutta Medical College, and, believing the proposed association would play the same important part in the intellectual amelioration of the countrymen which the Medical College has done, the Babu had no hesitation in seconding the resolution.

But the question, he said, may be asked, what was meant by time not having arrived? Was it that there were not funds enough to begin? Or that the people had not yet advanced sufficiently in intellectual culture to receive a high order of scientific education? He frankly admitted that the funds at the disposal of the committee were utterly inadequate for the very comprehensive scheme which his learned friend Dr. Mahendralal Sircar had propounded. To carry out the scheme effectually and completely in all its branches they wanted a lac for every thousand they had. But could they get lacs by sleeping on their oars? or by saying: "We will not begin until we get them? Already the murmur of disappointment was on the wing, and unless they began they would never likely get any thing worth having over the 80,000 they had. On the day the Agri-horticultural Society of Indian was inaugurated, there were only four persons present, and Dr. Carey said they were ample for a beginning, and that, insignificant as they were, they would, like the tiny seed of the banyan, in time produce a stately tree under the shadow of which a whole regiment could encamp. the present flourishing condition of that Society attested the truth of the prediction. Had Dr. Carey waited for a larger gathering, he would, perhaps, never have had the pleasure of founding the Agri-horticultural Society. The same will be the case with the Science Association. If the Committee began with what they had, they were most likely to be successful, but if they did not, they were never likely to have a better opportunity to make a commencement. Bengal happened to be governed just then by one who takes a real and zealous interest in the welfare of her children. Few could equal him in ability and energy. He had re-established some of the colleges which had been abolished by his predecessor, and established some new ones, whereby he had greatly benefited the cause of high education. He was an earnest advocate of science, and an institution like the one proposed was sure to prosper under his fostering care. The Babu felt convinced that they could not begin under better auspices than those of the gentleman who had achieved such wonderful success in connection with the Zoological Gardens of Calcutta. His presence at the meeting was an augury of their future success, and he strongly hereafter advised the meeting therefore to begin at once, should they, nevertheless, fail they will have the satisfaction of knowing that they had done their best in a good cause.

If exception be taken on the score of the capacity of Bengali youths, he would ask, are the elves of our schools and colleges so obtuse as not to be able to benefit by the study of science? The Medical College was a standing protest against such an idea, for there they already studied chemistry, botany, zoology and other sciences. One had already highly distinguished himself in chemistry, and there were hundreds, if not thousands, who were equally intelligent and able to learn. Those who obtained the degrees of masters in philosophy and mathematics would surely not fail in chemistry and physics.



If it be said that native youths may not be disposed to take up science, from a consideration of its not being sufficiently attractive, he would ask, are there so many ways of earning their livelihood by the youths of this country that none will take the trouble of studying science for it? Are the benches and the bar to our law courts so thinly occupied that our future graduates for years to come may find ample room there for themselves? Is the subordinate executive service so wide that they need no other opening for them. Will keranidom continue to be the be all and end all of the existence of our children? The speaker could well conceive, and so could his audience, the answer that they would get to such questions from the B.A.'s and M.A.'s., who were starving in many a creek and corner. No, the battle for existence had already become hard, and the sooner we prepared new fields for the rising generation the better of the country. The field of science was as long as it was broad, and many who could never hope to sit on a bench would find in it a lucrative and honorable profession. Science is the "open sesame for many a door that was now locked against their children, and they would do an invaluable service to them by placing it in their hands. Science applied to art had proved most lucrative to many, and the speaker instanced Sir William Armstrong, Colt, and 'Sam Slick' as men who had become immensely rich by the application of science to art, and there was no reason why the Bengalis could not do so likewise.

But science had a higher and nobler claim than the narrow utilitarian, Bethamite one to which the speaker had alluded. It was the most powerful lever for progress, for the advancement of civilization, for ennobling the mind of men. He had the highest respect for literature, and had devoted the best part of his life to its study. It was not likely therefore that he should be accused of a wish to disparage the study of literature, and yet he must frankly say that literature alone could not help them, and if his countrymen wished to keep themselves *au courant* with the rest of the world, and claim themselves to be as highly civilized as the nations of the West, they must study science as extensively as people do in Europe, and acquire the same mastery over it. Motion was the inexorable condition of existence physical as well as intellectual, and they must move on if they wished to live, stop the motion of a time and death would be the inevitable consequence. Again, no nation on earth had shown a higher appreciation of learning for its own sake than the Hindu. For three thousand years and upwards their ancestors had cherished Sanskrit learning for its own sake, and need it be doubted that their descendants would not be equal to the sciences of the present day? No, he had no such apprehension, and was fully convinced that, with adequate means and opportunities, they would be equal to the highest intellectual task that could be offered to them.

As to the constitution of the proposed institution, it was not for the speaker to say anything. Their Committee of Management would doubtless give the subscribers the best advice. But he thought it necessary to warn the meeting against a danger to which people in this country were very apt to fall. Do not, he said, confound science with technical education in industrial arts. Teach science to the highest extent possible; explain and illustrate it by reference to its bearings on art; qualify your students to

master the details of art by their knowledge of first principles, let every step of science education be explained by experiments, for science to be effectually learnt should be learnt in the laboratory, but do not attempt to make your Institution a school of technical education in the industrial arts under the misnomer of practical science. Practical science means science learnt practically, and that is what the speaker earnestly wanted, but do not found it with industrial art, nor attempt to make it self-supporting by producing remunerative art work in your laboratories. If you do, you will disappoint your pupils, and court signal failure. The Babu could speak with some confidence on that subject. He took a prominent part in the founding of the Calcutta School of Industrial Arts, now the Government School of Art, and was one of its secretaries for five years, and he knew well that as often as he tried to produce remunerative work, he demoralised the pupils of the school, and upset all discipline. Mr. Locke, the present able Principle of the School of Art, had since assured him that he too had found remunerative work prejudicial to healthy teaching. Besides, it should be remembered that what was wanted was not the introduction of manual arts, but the advancement therefore. Bengal was not an Andaman Island where the first rudiments had to be taught.

The country had its carpenters and joiners and carvers, its goldsmiths and ironsmiths, its weavers and dyers, its painters and manufacturers, and they worked with a high degree of ingenuity and delicacy, what they wanted was the application of science to the amelioration of their respective handicrafts. No school of art that could be established with the means at the disposal of the Committee could even attempt to teach as much as was taught in the workshops and manufactories of the country. They were certainly not able to establish a large dyeing factory such as could compete with the establishments which produce the renowned chintzes of the country, but they could in their laboratory and lecture-room teach the principles and value of mordants which would be of the utmost importance to those who worked in our dye houses. The shops of (Lazarus) & Co. and Hamilton & Co. taught better carpentry and carving and goldsmith's work than could possibly be taught in an art school. The idea, besides, was that such art schools should be the village schools, and he wished to combat that idea most strenuously, for he felt convinced that it was founded on a fallacy. He was of opinion that for practical technical education the large Government establishments and private manufactories were ample, and that under a proper system of apprenticeship the country would have all that it required. Such apprentices, however, could in time only grow up to be master-workmen, but not professors, and one of the duties of the Science Association should be to supplement practical proficiency in art with scientific knowledge – to teach the why and the wherefore of the details which the artisans follow in their workshops. The speaker had also to warn his audience of another mistake – do not attempt to teach everybody. General principles of science were instruments of mental training, and, like mathematics, were good for all; but special sciences were designed for special purposes and if forced uniformly on all, would entail a sad waste of time, energy and resources. A notable instance of this occurred in the rule which says that no boy should be allowed to enter the Calcutta University who had not learned the art of handling measuring tapes and offset staffs.

What earthly benefit such an accomplishment was to render to youths who intended to devote their energies for honours in Sanskrit philosophy, or Greek classics, the speaker could not divine. He hoped and trusted that the Committee of Management would keep clear of such folly, nor commit the equally egregious one of putting the cart before the horse, by teaching mixed sciences before instructing their pupils in elementary or simple ones, such as physical geography, without first teaching the elementary principles of general physics.

The Resolution was then put, and carried.

BABU DIGAMBAR MITRA, C.S.I., said that he had been asked to move the next Resolution, which was as follows: 'That this Association be considered a memorial in honor of the recent Royal visit to India, and designated 'The Indian Association for the Cultivation of Science'. The Resolution spoke for itself, and needed no words from him to command it to their notice.

RAJA JOTENDRA MOHAN TAGORE Bahadur had great pleasure to second the Resolution.

BABU JADUNATH GHOSH was of opinion that the Association should be named after His Royal Highness, the Prince of Wales, and he moved as an amendment that the Association be called the Albert Science Association.

BABU JOYKISSEN MOOKERJEA SECONDED THE AMENDMENT.

Dr. SIRCAR said that he would have been very happy to accept the amendment, but he thought they could not name the Institution after His Royal Highness without authority or permission to do so, and he was not in a position to say whether the permission would be granted. It would, therefore, be better if the amendment were withdrawn.

The amendment was accordingly withdrawn, and the original Resolution put, and carried.

RAJA KAMALAKRISHNA Bahadur moved 'that for the present the Association be divided into three sections, representing General Physics, Chemistry and Geology'.

BABU RAJENDRA DUTT seconded the Resolution.

BABU RAJKRISHNA MITTER suggested that Botany should be taught, instead of Geology.

BABU RAJENDRALALA MITRA thought that Geology was more important, as a study of the science did a way with the foolish preconceived notions about the earth and the things on it. Besides, Botany was taught elsewhere, but Geology nowhere.

HIS HONOR THE PRESIDENT said that, without intending any disparagement to either of the two sciences, he just wished to mention a circumstance which had lately occurred. Not long ago, an appointment worth Rs. 150 per month was vacant in the Botanical Gardens – an appointment which had hitherto always been held by Europeans. Now, the Government was anxious and desirous that the vacancy should be filled by a native of Bengal and was willing to make the appointment worth Rs.200, or even 250, if a suitable person could be found to fill it. Considerable search had been made for a person, but none could be got, and the consequence was that the place was filled by a European. Now, was it not a pity that science should be so little cultivated that good appointments for the natives of India should go abegging in this manner? Therefore, although it was quite true that Botany was taught in the Medical College to those who intended following the medical profession, he would only mention that he thought the Association would at some future time take into consideration whether Botany should not be taught as well. It was useful science, and it cost little or nothing in the shape of expense to teach it. He did not make these remarks in disparagement of Geology, nor with the view to alter the Resolution, but simply to draw the attention of the members of the Association to this useful science.

The Resolution was then put, and carried.

Rev. Father LAFONT said that he had the agreeable task of proposing the fourth Resolution. 'That the Hon'ble Sir Richard Temple, K.C.S.I., be solicited to be the President of the Association' (cheers). If there was any Resolution on the paper which needed no commendation from the mover, it was this one, However, it was difficult from one point of view to have anything to say on this subject, that is, he was precluded by the presence of His Honor from giving many reasons in favor of the proposal. He might, however, be permitted to say that they had so many substantial proofs of the great interest which His Honor daily took in the diffusion of science in Bengal that there could be no doubt that the Resolution would be received with favor by all, and he had therefore much pleasure in moving it.

#### BABU JADULAL MULLICK SECONDED THE RESOLUTION.

The Resolution was put to the meeting by Father Lafon, who said, he would spare His Honor the trouble of putting it himself, and was carried with loud cheers.

HIS HONOR THE LIEUTENANT GOVERNOR then said:

"Gentlemen, I shall be very happy to be the President of an Association of this nature – an Association which, if well and judiciously conducted, will, I have no doubt, be of very great benefit to the people of Bengal. There is only one remark I desire to make and that is to mention to you frankly, and at the commencement, that I for one would be glad if any individual influence could be the means of drawing together a similar Association formed in the city under other auspicious. It appears to me that the object of this Association and the object of the other association – I may for the

moment be permitted to call it the other Association, because I do not think that it has as yet a definite name – but, be that as it may, I do believe that the two objects are substantially the same. The only point of difference is possibly this, that at the outset it might perhaps be thought that the object and policy of Dr. Mahendralal Sircar tends rather towards the cultivation of the Abstract and Theoretical Sciences than of the Practical Science (hear, hear) while the other Association seems primarily to direct its effort towards the cultivation of the Practical Sciences. But I have had the advantage of a consultation with Dr. Sircar, and I learn from him that, however devoted he may be to Theoretical Science, he is equally a true and close friend to the study of the Practical Sciences, whereby his poor and industries fellow countrymen who are anxious to earn their living by honest industry, may be able to do so. I do hope that what I now say will find favour in the eyes of the more influential supporters of the other Association, and that, whatever difference of opinion there may be between them in regard to details, it will not prevent the one from holding out the right hand of fellowship to the other, which has practically the same aim in view. As I have told you, and you will recollect, both the objects are ultimately the same, namely, the improvement of the rising generation to the level of Western knowledge of science, while it will also afford those who cannot find a living in the public service and the Bar, a means of earning a good livelihood by practical pursuits, such as those of a scientific forester, a gardener, a civil engineer, a surveyor, a chemist and the like. I am sure you will agree with me that the learned professions, as they now exist in Bengal, are not sufficiently extensive to furnish employment to all those educated men who are annually, constantly seeking for employment. There is, therefore, nothing for these young men, if they wish to live respectably, but for them to put their shoulders to the wheel-the wheel being the cultivation of the practical sciences (loud cheers).

Babu Joykissen Mookerjee then moved that the thanks of the meeting be tendered to the provisional Committee for the services rendered by them in giving a scheme for the practical working of the Association, and that the undermentioned gentlemen be requested, to form the Committee of the Management for the current year, and also to frame rules for the conduct and management of the Association.

The Hon'ble Sir Richard Temple, K.C.S.I., (ex-officio)  
 Member of the Provisional Committee, and  
 Babu Rajendralala Mitra.  
 Babu Rajendra Dutt.  
 Babu Jadulal Mullick.  
 Babu Nilmadhab Mookerjee.  
 Babu Keshub Chunder Sen.  
 Babu Ananda Mohan Bose.

Dr. Sircar to act as Secretary, and seven to form a quorum.

BABU ANNADAPRASAD ROY seconded the Resolution.

Before putting the Resolution, His Honor enquired whether any member of the Indian league would like to address the meeting, and called upon Babu Sambhu Chandra Mookherjee to do so.

BABU SAMBHU CHANDRA MOOKHERJEE said that, so far as he was aware of the intention of the members of the League, and of those gentlemen who had assisted in forming the other Association alluded to by His Honor, they were bent on the establishment of technical university, or to make a beginning, a technical college, such as existed in Switzerland and Germany, but in as much as the objects of the two institutions were not antagonistic, and as in the present state of the country there was little respect of securing several independent institutions of nearly similar aims, the promoters of the two might see the expediency of combining their efforts. He was not sure whether, if it were explained to them that the objects of this Association were not of different, but the same kind, they would not join it. He thought it possible they would. Babu Jadunath Ghose was of the opinion that the two schemes should be amalgamated, and had clearly and distinctly expressed that opinion when, at the meeting called by the India league, he seconded the Resolution proposed by Father Lafont for the establishment of the Association. He urged that however distinct the objects of the two institutions might be made to appear, they had, it should not be forgotten, enough of common ground to make it possible for either to prosper as well independently as in cordial co-operation independent action simply from an apprehension of future dispute and clashing of interest might seem to be prudent, and might appear attractive to gentlemen who are for peace at any price, but would unquestionably lead to the frittering away of the resources or both.

His Honor the PRESIDENT suggested that Babu Kalimohun Das, the Secretary of the Indian League, should address the meeting.

Babu KALIMOHUN DAS began saying that he had contributed his mite to this Association and he will also contribute his mite to this Association and he will also contribute his mite to the other Association. He was therefore partial to neither. He has understood the movement of Dr. Sircar to be one for the encouragement of scientific pursuits, merely for the mental pleasure they afforded, rather than for the varied applications of scientific truths and discoveries to the arts and comforts of life. The object of the other Association was the encouragement of knowledge of the practical sciences for the latter purpose. As he understood them, the two schemes were different, though not antagonistic, and he believed that the latter clause of the first Resolution – ‘and to its varied applications to the arts and comforts of life’ – was an after-thought, as nothing to that effect appeared in the report of the Committee. He was not prepared to say that an amalgamation was feasible, but everything would depend on the real purpose of Dr. Sircar’s Association, that is, whether it was intended to apply a knowledge of the practical science to the arts and comforts of life.

Dr. SIRCAR pointed out that in the sketch of the scheme of the Science Association submitted by him to the Committee, it was stated in the very first paragraph that the

object of the Association would be 'to enable the Natives of India to cultivate science with a view to its advancement by original research, and (as it will necessarily follow) with a view to its varied applications to the arts and comforts of life'. It was clear, therefore, that the clause in the first Resolution was not an after-thought.

The Rev. FATHER LAFONT said that it would be difficult to teach a nation how to apply things they did not know anything about. It was necessary, therefore, first to teach the sciences before their applications to the arts could be taught with advantage.

#### 7. JOINT MEETING OF SUBSCRIBERS TO THE SCIENCE ASSOCIATION AND OF THE INDIAN LEAGUE

On Friday, the 28th January 1876 at 4.30 P.M. His Honor the Lieutenant-Governor of Bengal called a meeting of the subscribers to Dr. Sircar's Association, and to the fund raised by the Indian League in Bengal, at the Senate House of the Calcutta University. The meeting, though not large, was influentially attended. Upwards of fifty gentlemen were present Amongst others, are remarked the following:

The Hon'ble Sir Richard Temple, K.C.S.I. in the chair.

F.N. Fowler, Esq. M.P.

H. Woodraw, Esq. M.A.

J Sutcliffe, Esq. M.A.

G.W. Wilson, Esq.

Very Rev. E. Lafont, S.J.

Rev. K.M. Banerjea

Babu Joykissen Mookherjea

Rajah Joteendra Mohan Tagore Bahadur

Hon'ble Ramesh Chunder Mitra

Hon'ble Kristo Dass Pal

Babu Rajendralala Mitra

Babu Sambhu Chunder Mookerjee

Babu Jadu Lal Mullick.

Raja Harendra Krishna Bahadur

Maulvie Abdul Latif Khan Bahadur

Rai Kanai Lal Dey Bahadur

Babu Prasanna Kumar Sarvadhikari

Pandit Mahesha Chandra Nyayaratna

Babu Rajendra Dutt

Babu Chandi Lal Singh

Babu Piyari Mohan Mookerjee

Babu Jogesh Chunder Dutt

Babu Radhika Prasanna Mookerjee

Babu Keshub Chunder Sen

Babu Bama Charan Banerjea

Babu Aghor Nath Kumar

Babu Pran Nath Dutt  
 Babu Brojendra Kumar Roy  
 Babu Janaki Nath Roy  
 Babu Janaki Nath Dutt  
 Babu Sisir Kumar Ghosh  
 Babu Hemant Kumar Ghosh  
 Babu Jadu Nath Ghosh  
 Babu Pran Nath Pandit  
 Babu Jogendra Chandra Ghosh  
 Babu Nilmadub Mookerjea  
 Babu Surendra Nath Banerjea  
 Babu Nobin Chunder Boral  
 Babu Koylash Chunder Ghosh  
 Dr. Mahendralal Sircar.

His Honor the Lieutenant-Governor opened the proceedings of the meeting by explaining the object for which it had been convened. His Honor then laid on the table a scheme formed by him for establishing a college for the diffusion of knowledge in practical science, and observed that, as two parties had applied to him for Government aid, one of behalf of Dr. Sircar's Association, and the other on behalf of the Indian League, both having identical objects, but differing in the means to be employed, therefore, he hoped that both would amalgamate and form one, in order that they may both work harmoniously. But prior to arriving at any definite arrangement, he was desirous of hearing the views of each party. He, therefore, called upon Dr. Mahendralal Sircar to explain the objects of his Association. Dr. Sircar spoke as follows:

Your HONOR AND GENTLEMEN

With reference to the scheme with which your Honor has favored us, I beg leave most respectfully but candidly to submit that it does not agree with what I have been striving after for so long a time. It was not in my contemplation to found a college for students to obtain their tuition there for a certain term. I have been aiming at establishing an institution where men, who have passed their state of pupilage, may have opportunities and means to prosecute life – long, or as long the like, certainly longer than collegiate term, some one or more branches of science, with a view not only to learn the truths and principles already discovered, but so to master their details as to be able to make original researches in order to arrive at fresh discoveries. As I have over and over again said, and I cannot too often and too emphatically repeat it, that in school pupils can never attain to the manhood of original investigator of science. I, of course, admit, it would be madness not to admit that the state of pupilage is necessary, but it must also be admitted that it is necessary only up to a certain point, beyond which it is detrimental to the free development of the intellect, beyond which tutorial or professorial pressure acts as in incubus restraining all the energies of the mind. If it is a college of science that is intended to be established then I must say that I can scarcely see any necessity for it, inasmuch as all the branches included in Your Honor's scheme, with the exception of geology, are taught in institutions that exist,



namely, in the Presidency, the Medical, and the Civil Engineering Colleges. There are very able professors in these institutions, and they are doing their duties, so far as instruction to students are concerned most efficiently, and if under such able guidance results, such as Your Honor expects, are not attained, it is not because, I submit, of any fault in the teaching or the learning, but because such results are not attainable by such means. The instruction that can be imparted by the tutor, and received by the student, should be looked upon in no other light than as merely a preliminary step to the practical work the latter may be destined for in life, but for this practical work he must have a field to work in and upon, and unless it is supplied, it is not fair, in my humble opinion, to raise a cry against either the defect in the instruction given by the tutors, or the qualification attained by the student. Such field is supplied in Europe and America to a large extent by state and other appointments. Such appointments do not exist in this country, or exist only for Europeans. The institution I have in contemplation will to a limited, yes very limited extent, indeed, supply the field. I speak of the aspiring student. I say limited, because of our limited means. With increase in our funds there is likely to be indefinite increase in the area of the field.

And now, Hon'ble Sir, a few words in reference to the question of amalgamation which your Honor has been so kindly and anxiously trying to bring about. I beg leave to say that the opinion I gave out in the pamphlet I have recently published, remains unchanged. If the object of the institution I have in view, and the object of the institution the League has in view, are, as your Honor has been assuring me, identical, then I do not see any reason why the two funds should not form one to carry on the self-same object on a grander scale than either could do alone. How the object of my projected institution has been before the public for the last six years. It is, as I have just now said, to enable the natives of this country to cultivate science in all its departments, it is, in fact, pure science-learning and science-teaching, with reference to the practical applications of science so far only as are naturally and necessarily inferable while carrying on experimental investigations. The object is not to drill man in the arts which constitute the manual and the mechanical industries. Which is the more practical and useful object it would be idle to discuss here. But it is necessary to know which is the object the gentlemen of the League have in view. If the former, then I am sure, my supporters would not only shake hands with them but welcome them in the words of Shakespeare.

“We came into world like brother and brother.

And let's go hand in hand, not one before another’

If their object is the latter, or something else, but distinct from mine, then there would be no earthly utility in an amalgamations and we can well say to each other, the world is wide enough for both let us cultivate our respective fields quietly and in peace. But I need not take up the time of the meeting in idle conjecture as to what the objects of the League are. Your Honor has very wisely called us together. The gentlemen of the League are here, most of them are my friends, some of them are my subscribers, let us hear what they have to say.

The Rev. K.M. Banerjea was then called upon, as Chairman of the Indian League, to state the views of that body. He remarked that as he had been very recently requested by the members of the League to act as their Chairman, he had not as yet fully acquainted himself with all the details of the movements of that institution. From what he could understand of the real objects of the League, he was of opinion that those objects and those of Dr. Sircar were founded upon the same principle, differing only in the means employed to carry them out, and that therefore neither he nor his friends, the members of the league, had inseparable objection to the amalgamation suggested by His Honor, the Lieutenant-Governor, and that they would gladly agree to a junction if it could be done consistently with two principle which were essential to their scheme, and on the faith of which their subscribers had promised contributions. The first was that the proposed college was to be considered as commemorative of the condescending visit which His Royal Highness, the Prince of Wales, paid to India and therefore it must bear a name suggestive of that idea. The second was the combination of scientific teaching with practical training. These two points were sine qua non with them, the one being on a feeling of loyalty which could not be allowed to be interfered with, the other was indicative of a desire on the part of their subscribers to help in associating a feeling of personal independence with the acquisition of knowledge and the attainment of University Degrees and Honors. For the first, he needed not to adduce any proof or argument, for the second, he would simply refer to the well known circumstances of the country. In numerous instances, University degree-holders appeared to be entirely helpless – and, it might be added, hopeless too. All looked for the relief which the patronage of Government or any private body requiring educated employees could alone afford. But the State cannot find employment for them all. The bar is overcrowded and other professions are overstocked; the Exchange Gazette gives invincible proofs of the want of employment for graduates who are sent forth by the Calcutta University yearly. Few could hold their own in the great struggle of life by self-help. Few could realize that honor or feel that independence which could only fall to the lot of those who could do something for themselves. Under these circumstances, the members of the Indian League were desirous of establishing a college for the inculcation of the arts of life based on principle of science. Few could expect to derive from the public an honest and independent livelihood without learning to be honorably useful to them. It was to remedy this state of things that his (the speaker) friends had determined on the establishment of a college, which might turn out instructed gentlemen representing the various arts of life.

The Rev. K.M. Banerjea then referred to the statement of Dr. Sircar, and said that although as far as the scheme of the Indian League was concerned he need not add anything more, yet since it has been contended that practical training was already sufficiently provided for in the existing institutions, and that an additional one was therefore unnecessary. Dr. Sircar interrupting said that he never said so, he never said that the applications of science to the arts were at all taught in any of the existing institutions, and, he never said that the League's college was unnecessary, but Mr. Banerjea continued unmindful of the interruption and of Dr. Sircar's remarks, and said he would be ill discharging the duty of the office to which the Indian League had called

him if he did not protest against the idea that sufficient was already done for practical scientific training and that there was no necessity for another institution for the same. It was difficult to define the word 'necessity'. To a man who is indifferent to all things, nothing can be 'necessary'. But taking Aristotle's derivation and dealing with the word practically, everything must be called 'necessary' without which there would be distress, inconvenience or difficulty. And thus whatever removes a distress, a felt want or difficulty, must be held to be 'necessary'. Mr. Banerjea entertains the greatest respect for Dr. Sircar, and would not say one word invidiously against that gentlemen's scheme. But in duty to his friends of the League, he is bound to show that their scheme is not unnecessary. Daily incidents would convince even a superficial observer of the difficulty in which numbers of University graduates are practically placed. It is to remove this difficulty that the League has come forward with its scheme. Mr. Banerjea has not the slightest objection to Dr. Sircar's scheme. On the contrary, he would wish it full success. he, for one, indeed, did not yield to anybody in his admiration of such lofty aspirations as Dr. Sircar was aiming at. Nevertheless, he felt bound to confess that Dr. Sircar seemed to be soaring aloft, without looking beneath. There were stern facts staring at us wherever we looked, and however noble may be the ambition of Dr. Sircar, yet he was at a loss to comprehend how it was to be effectually carried out. No one could rejoice more than himself if that scheme could give to discoveries of scientific truth now unknown to the world. No one could hail the day with greater favor than himself if that scheme could give a rise to Indian Galileos, Indian Newtons, Indian Herschels, and lead to discoveries of new stars called by Indian names, new theories designated by Indian vocables, new terms couched in Indian language. But he (Mr. Banerjea) must confess to his grovelling nature and his consequent inability to soar so high above the ken of ordinary men. He must confess that before he could look up to such a height, he was obliged to look around him and then he finds a difficulty in turning his eyes from many surrounding objects staring him in the face. Existing circumstances compelled him and his friends to think of utilizing the discoveries already made before aspiring after fresh discoveries. The actual condition of Bengal society could not be ignored, and it was to adapt their effort to that condition that his friends of the League had entertained the idea of scientific instruction combined with practical training. It was still the day of small things in Bengal and they had determined to confine their action to the exigencies of their day. But they were not hostile to the other scheme. Though they could not consent to be absorbed into it, they were prepared as loving brethren to work by its side under the same roof like members of a joint family.

The Very Rev. Father Lafont then rose and said that the last speaker had evidently mistaken notions about Dr. Sircar's scheme. The science Association was not intended to produce Newtons and Galileos and Herschels, though even that was not impossible but its primary object was very different and much more practical than the Rev. speaker seemed to suppose. Dr. Sircar, seeing that the superiority of the Western nations was mainly due to their knowledge of science, wanted to diffuse that knowledge amongst his countrymen, in the hope that after mastering what had been already discovered by Europeans the Hindus might, in the course of time, add their own

discoveries to those of their fellow brethren of the West. This project, no one could deny, was a noble patriotic move towards the real welfare of the nation. There was nothing metaphysical or ideal in it, and results might be expected of the most practical nature. The other Association wanted, as far as he could understand its aim, to transform the Hindus into a number of mechanics, requiring for ever European supervision, whereas Dr. Sircar's object was to emancipate, in the long runs, his countrymen from his humiliating bondage. It was not difficult to judge which of these projects was the most calculated to benefit the nation. Besides, to teach the practice and applications of modern science to people utterly ignorant of the principles of that science seemed pretty much like putting the cart before the house. History was there to testify that in Europe theory preceded practice as causes precede their effects, and India would be no exception to this logical rule. He, therefore, contented that the respective projects of Dr. Sircar and the League could not go hand in hand.

Babu Sambhu Chunder Mookerjee, on being called upon to speak, said that the argument of the renowned gentlemen, who had just spoken, did full credit to the distinguished order to which he belonged, and of which he was an ornament in this city, but it was more ingenious than true. The Chairman believed Babu Sambhu Chandra meant to say 'accurate'. Babu Sambhu Chandra Mookerjee thanked His Honor for the suggestion, though he thought the meaning of the word 'true' was unmistakable and inoffensive. Of course he meant to say that the reasoning of the Rev. Father appeared to him to be more ingenious than accurate. He thought that in regard to the two proposed institutions supplementary to the established means of education, the practical question was not whether theory should precede practice or practice theory. He regretted to see that Mr. Sircar was wanting in candour. He regretted that the Doctor should have allowed himself to conclude his excellent speech with an attack on the technical school that the Indian League were endeavoring to found as an unnecessary and useless thing – and attack which had justly provoked the passionate reply of the new Chairman of the League. If he were permitted he might retort with the remark that not theirs, but his friend Dr. Sircar's hobby was unnecessary. It was at least a luxury. The proposed Science Association was, indeed, anachronism and an anomaly. In the present state to the country it was premature. Fifty years hence it may, and he hoped, must be wanted. And then we should have not only Dr. Sircar's Association but also Mr. Beames' Academy of Bengali Literature, and many other institutions. Of its absolute importance there could not be two opinions, the demand for it was only a question of time. Nothing would be more pleasing to him than to know that it had become needed – that we had reached a stage of progress when a science Association might naturally come as the proper instrument for our scientific development. Whether the time had come or not was a question of fact which the success of Dr. Sircar's movement would test. Meantime he was surprised to hear questions on the utility or appropriateness or timeliness of the humbler institution, of a different class, which the Indian League sought to establish, but if anything could surprise him more it was to see a body of grave gentlemen of the world all, however favored by the Muses, were some of them – prepared to dispose of the claims of a project which many of their fellow citizens, good men and true, regarded as of great

public importance at this period on an airy and obscure theory of theory preceding practice. He did not think the truth lay in the direction contended for by the last Rev. speaker. The fact was the very reverse, it was theory that came after. The question whether theory precedes practice or practice precedes theory was almost a metaphysical question and should not be allowed to be settled by the contemptuous ipse dixit of even so distinguished an Anglo Indian scientist as the Rector of St. Xavier's. But it appeared to him that was altogether an irrelevant discussion. The objects of the proposed school of technical education being more homely and coming more direct to the business and bosomes of men, it was not unlikely that the munificent donors had put their money down from an understanding of the utility of raising practical men of science. But even the intelligent appreciation of a few donors would not alone maintain an institution. Such support, and it is not small, as the intelligent appreciation of the wealthy of a community afforded to any institution, could hardly be claimed by the Science Association, at least to an equal extent with the proposed polytechnique. It might be fairly questioned whether the opulent gentleman, who so readily subscribed their thousand and two thousand and four thousand each towards Dr. Sircar's Science Association, knew what they were about, except obliging an eminent practising physician, any more than many of the subscribers to Father Lafont's pectroscopie observatory could tell what would be the good of it, though several were no doubt willing to evince their gratitude to the most eminent of our unpaid scientific public lecturers, one who had done more than any other man for increasing the scientific knowledge of the community at large. For all the lectures Dr. Sircar had delivered and the numerous pamphlets he had issued, the community had the vaguest possible idea of his scheme, and so far from the matter being elucidated by the several meetings they had in this Hall the confusion had been worse confounded. What was worse was that although they were assured that the Science Association had from the first been designed for the cultivation of pure science for its own sake, without any reference to any practical utility (as the term is ordinarily understood), that it had never been intended to train men in any applications of science to the uses of the world, the first Resolution at the late meeting (to establish the Association) openly professed to establish it 'both with a view to the advancement of science by original research and to its varied applications to the arts and comforts of life, and when Babu Kali Mohan Das and the speaker himself were called on to say whether the League would join the Association with the funds it had raised for its technical seminary, it was doubtless on the faith of that profession that the League were expected to consent to swell the coffers of the Association. There was now no longer any doubt about the real programme fo the Association which was to be a Royal Society of India, even more than a Royal Institution of London in India. That would be a high thing for any country. It would be a proof of no ordinary progress to know that so many men had, with full knowledge, subscribed towards so unselfish, unpractical a sientific object. But the desirableness – the superior attractions and high aspirations – of an Academy of Sciences did not diminish the usefulness of a school of technique. Its need was at least as pressing. In our present situation it was more to the purpose.

It had been said to-day towards proving that there was no necessity for founding

the school of practical science contemplated by the League that the Government instruction in science was quite all that was needed for the purpose. After hearing the Government and university scientific education condemned for years, after having the necessity of the Science Association itself argued from the deficiencies and defects of that education, the speaker was not prepared to hear from the same quarter such a glowing panegyric on the much abused system. But panegyric did not alter facts, and it was notorious that the teaching of science in both the colleges of general instruction and the special schools like the Medical College, at one time real enough, had of late years degenerated into a mere book cram. That was a still greater reason for founding an efficient school of first hand and experimental instruction. Such an institution would be a better feeder to the Science Association itself than the Government institutions, as at present conducted, are likely to prove. As between the rival projects, the Association might wait rather than the polytechnique. All the objects it had in view might be attained by arrangements for opening the museums and laboratories of the Medical and presidency Colleges to the so-called scientific 'workers'- who could not be many – and there could not be a better medium of communication of results than the Asiatic Society. One might indeed say that the scheme of the Association involved a waste. A small addition to the State grant to the State Colleges, and a small grant to the Asiatic Society, might do the needful, and more efficiently. Speaking of the latter society reminded Babu Sambhu Chandra that the public of this country had been very culpable in neglecting an institution which had done so much not only for oriental literature and Indian antiquities and history, but also for the cause of science. The men of science in India have all been Asiatic-Society men. Amidst the liberality not always thoughtful, lavished on this scheme and that, now on a manageries' now on a memorial, he regretted to see the unmerited neglect of our public subscribers of a Society which had hitherto supplied the place of our Academy of Sciences-an institution which has so long unworthily represented Indian Science.

Babu Deno Nath Sen, of Dacca, was then called upon to explain the practical objects of the League, as he was understood to have propounded a scheme of his own, but he, in an inaudible voice, respectfully declined to do so, on the ground that he was not accustomed to speak in public, observing that whatever he had to say was on record in the scheme he had delivered to the Indian League, and that there were persons present at the meeting, better able than himself to perform the task.

Babu Jadu Nath Ghose rose and supported both the scheme as tending to further the object which both the parties had in view. He strongly urged the necessity of an amalgamation, and hoped that the two sister institutions would work hand in hand.

The Reverend K.M. Banarjee again got up, and read passages from the minute drawn by Babu Deno Nath Sen. Although he did not for himself agree with the writer in all the minute details propounded therein, yet he thought that in substance, the minute contained the view of the League.

Babu Surji kumar Sarbadhikari then rose, and condemned in strong terms the tone

assumed by Babu Sambu Chunder Mookerjee in his speech. He indignantly protested against the scurrilous attack made unprovoked by the Babu on the eminent millionaires of the city, and he hoped the meeting would in a fitting way mark its sense of such conduct. He thought it his duty of behalf of Dr. Sircar's Association, to bring to the notice of the meeting the unseemly expressions made use of by Mr. Mookerjee towards Dr. Sircar, in attributing motives which, in fact, never existed.

His Honor the Lieutenant Governor assured the meeting that Mr. Mookerjee meant nothing wrong, and what he said was simply in the exercise of his freedom of speech, which in a public meeting every speaker is entitled to assume.

Babu Surendra Nath Banerjea began by remarking that with all the deference that he felt for His Honor the Lieutenant Governor, he could not but remark that he had never before heard in any public meeting such language as had been used by Babu Sambhu Chunder Mookerjee in the course of his speech. No doubt great latitude of speech ought to be permitted in all meetings where disputed points are discussed, but he conceived that such latitude ought never to be allowed to outstrip the limits of decency and decorum. So far as he had been able to gather it did not appear to him that the gentlemen of the League had presented them with any definite scheme with regard to the proposed technical school, and before such a scheme was presented it was unreasonable to expect that the supporters of Dr. Sircar's Science Association would consent to an amalgamation with the project of the League. Most of the supporters of Dr. Sircar had subscribed, at all events he could say for himself that he had subscribed, on the strength of a definite plan sketched out by Dr. Sircar. Now no such definite scheme had been presented to them by the League. Here the Rev. K.M. Banerjea interrupted by saying that the League have never said that they have submitted a scheme. Babu Surendra Nath Banerjea replied that made the case worse for them. If the League had no definite scheme, to what object then did they as Dr. Sircar subscribers to divert their funds, with what were they to amalgamate? It was scarcely generous of the leaders of the League to direct their attack against Dr. Sircar's scheme for a scientific institution which, being before the public for a period of nearly six years, had greatly contributed towards preparing and educating the public mind to a proper appreciation of scientific studies, whether practical or theoretical.

His Honor then said, after having heard both parties he was clearly of opinion that the two funds could not be amalgamated, and, if the two parties could not combine together, he must treat with them separately. After what he had heard that day from the speakers representing the different parties, he must give up all hope of a reconciliation.

The Rev. K.M. Banerjea proposed that, if the two parties could be combined, yet they could both work under the same roof, separately, and treat each other as loving brethren.

His Honor then got up and said that he was certain that no amalgamation could

take place, as it would only end in discussions, and interfere with the working of each. He took the sense of the meeting by asking for votes for separation and amalgamation respectively; 32 hands were raised in favor of separation, and 5 in favor of amalgamation.

His Honor then briefly explained his own views on the subject, and wound up the proceedings of the meeting, which was closed with a vote of thanks to the Chair.

The meeting broke up at 6 p.m.

#### 8. AID BY GOVERNMENT TO THE NATIVE ASSOCIATION FOR THE CULTIVATION OF SCIENCE

Minute by the Lieutenant-Governor of Bengal, dated 21st January 1876

(Calcutta Gazette, 23rd Feb. 1876)

1. For some time past an Association for the Cultivation of Science has been organized by a body of native gentlemen at the instance of Dr. Mahendralal Sircar, a medical practitioner of considerable repute in Calcutta, and himself an example of the elevating effect of scientific culture. The Association consists of many members, and donations to a considerable amount, over Rs. 80,000. have been promised. There is an expectation that current subscriptions for the month, or for the year, will be received. The objects of the Association are to provide lectures of a very superior kind in the various branches of the physical sciences, especially general physics, chemistry, and geology, mainly for students who have already passed through school or college or have otherwise attained some degree of proficiency in these respects. There would also be lectures for youths and students possessing a lesser degree of proficiency. One special object of the Institution is to encourage native young men of talent and education to prosecute systematically scientific studies after leaving college, so as to advance to a high stage of knowledge. The several sciences would be taught with a view to their application to practical arts and uses. Expense would have to be incurred in remunerating the lecturers, in obtaining apparatus, institutions, and books, in allowing scholarships to specially selected students, and in providing house accommodation.
2. The Association held a meeting on the 15th January last, consisting of native gentlemen of wealth, learning, and position, which meeting I myself attended and a committee of management was formed. At that meeting it was resolved that the opening of the Institution should be considered as a memorial of the visit of His Royal Highness the Prince of Wales.
3. The management of the Institution would be determined by the members of the Association, under such conditions as they might settle among themselves. It is important that the members should depend on their own independent exertions for the attainment of success; they would raise and judiciously invest their funds, and



would collect current subscriptions, they would determine the subjects of the lectures, and appoint the lecturers; they would allot scholarships so far as their funds might permit.

4. The Association are, I understand, desirous of knowing what assistance the Government could or would render.

Considering that the formation of this Association constitutes an important effort by the natives themselves to promote the cultivation of science; that the realization of so large an amount of donations as that promised would indicate munificence on the part of many native gentlemen for the good of their countrymen; that the Institution, if successful, would serve a considerable educational purpose, and among other things would probably supply teachers for technical schools or other scientific institutions which the Governemt might set up in Bengal, I think that the project merits some co-operation\*from the Government in token of its sympathy with the good cause which the Association has at heart.

5. I propose, therefore, to take an eligible building, with its premises, situated at the junction of College Street and Bow Bazar, and to make it over unfinished to the Assoiation for occupation free of all charge for a term of years, which would be settled separately in consultation with the Committee, for the purposes as above set forth, on condition that at least. Rs. 70,000 be acutally obtained by donations, of which at least Rs. 50,000 must be invested by the Committee in Government securities, and that a monthly subscription of at least Rs. 100 per mensom be promised for two years. This proposal is made provisionally and conditionally upon Government being able to obtain possession of the said house and premises. In this way the Association would be spared the cost of obtaining suitable accommodation in the city of Calcutta, which is always a matter of difficulty, and would be able to devote its private resources to developing systematic instruction.

RICHARD TEMPLE

#### 9. LIST OF SUBSCRIBERS/DONATIONS

		Rs
The Hon'ble Sir Richard Temple, Bart., K.C.S.I.		500
1870		
24th Jan.	Babu Joykissen Mookerjee	1,000
24th Jan.	Raja Kamala Krishna Bahadur	2,000
31st Jan.	Raja Degumber Mitter, C.S.I.	1,000
31st Jan.	Babu Jogeshwar Singh and Brother	1,000
7th Feb.	Pandit Iswara Chandra Vidyasagara	1,000
11th Feb.	Maharaja Joteendro Mohun Tagore Bahadur	2,500
21st Feb.	Dutta Family of Wellington Square	1,000
7th March	Babu Dwijendra Nath Tagore	1,000

7th March	Babu Gunendranath Tagore	1,000
18th April	Babu Dwarka Nath Mitter, Sreekissenpore	1,000
30th June	Babu Janakinath Mookerjee, Boinchee	2,000
5th Sept.	Hon'ble Dwarka Nath Mitter	4,000
5th Sept.	Babu Annada Prasad Banerjee	1,000
31st Oct.	Babu Jadulal Mullick	1,500
28th Nov.	Kumar Grish Chunder Singh and monors, Paikparah Raj Family	2,000
5th Dec.	Hon'ble Ramesh Chandra Mitter, Judge, H.C.	2,000
12th Dec	Hon'ble Anukul Chandra Mookerjee	2,000
1871		
16th March	His Highness the Maharajah of Patiallah	5,000
16th March	Babu Mahesh Ch. Chaudhuri, Pleader H.C.	1,000
16th March	Babu Kalimohan Das, Pleader High Count.	1,000
16th March	Babu Surjit Kumar Sarvadhikari	1,000
16th March	Babu Jogendra Chandra Roy	1,000
17th April	Srimati Darimaia Devi, widow of the late Babu Govind Prasad Pandit, Raniganj	1,000
17th April	Babu Jogendra Narayan Ghose	1,000
1872		
29th April	Babu Rakhai Chandra Roy, Zemindar, Lakotea	1,000
20th May	Babu Jogendra Chandra Ghose, Kidderpore	1,000
2nd Sept.	Babu Kaliprasanna Ghose	1,000
12th Nov.	Maharani Sarnamayi, Kasim Bazar	8,000
1873		
26th Jan.	Babu Mohini Mohan Roy, Pleader, High Court	1,000
26th Jan.	Dr. Mahendra Lal Sircar, M.D.	1,000
1875		
1st March	Babu Sharat Kumar Ghosal, M.A.	100
7th March	Rai Kanai Lal Dey Bahadur	1,000
20th March	Babu Omesh Chundeer Dutt	1,000
23rd March	Babu Bamacharan Banerjee, Pleader, High Court	100
29th March	Babu Khetter Mohan Chatterjee, Dakhineswar	100
29th March	Hon'ble Issure Chunder Mitter, Deputy Magistrate	600
29th March	Babu Nilmony Coomar, Calcutta	180
29th March	Babu Brindabun Chunder Chatterjee, Sub-Registrar	150
29th March	Babu Nobin Chunder Pal, Metiabruz	100
31st March	Babu Dwarka Nath Biswas, Jan Bazar	1,000
31st March	Babu Sam Chand Coomar	500
31st March	Babu Kali Prasanna Dutta	250
31st March	Babu Omesh Chunder Mitter, I.M.S.	250

2nd April	Raja Harendra Krishna Dev Bahadur	500
2nd April	Babu Nil Kamal Mitter	100
2nd April	Babu Nilmani Mitter, Engineer	200
2nd April	Professor Piyari Charan Sircar	200
2nd April	Babu Ramanath Law, Attorney-at-Law	250
2nd April	Babu Sam Lall Mitter, Pleader, High Court	200
3rd April	Babu Srinath Das, Pleader, High Court	500
3rd April	Professor Rajkrishna Banerjee, Presidency College	100
3rd April	Pandit Pran Nath Sarswati, M.A., B.L.	100
3rd April	Babu Jadu Nath Ghose, Principal, Seal's College	200
3rd April	Babu Gangadhar Chatterjee	150
3rd April	Babu Sambhu Chunder Mookerjee	100
3rd April	Babu Ganesh Chunder Chunder, Attorney-at-Law	300
3rd April	Babu Docowry Ghose, Medical Practitioner	100
3rd April	Babu Rajkrishna Mitter, Presidency College	100
3rd April	Babu Jadu Nath Dey	100
4th April	Babu Harish Chandra Sarma	50
4th April	Babu Sib Chandra Dev	50
4th April	Babu Nrisinha Charan Mookerjee, M.A., B.L.	50
4th April	Babu Isan Chandra Banerjee	100
4th April	Babu Luckhy Narain Bose, Assistant Surgeon	100
4th April	Kaviraj Brajendra Kumar Sen and brother, in honor of the memory of their father the late Kaviraj Haradhan Sen	500
4th April	Babu Russick Lal Pyne	100
4th April	Maharaja Ramanath Tagore Bahadur, C.S.I.	1,000
5th April	Babu Braja Nath Dey, Bhandardaha	50
5th April	Hon'ble Kristodas Pal Rai Bahadur	200
5th April	Hon'ble Moulavie Abdool Luteer Khan Bahadur	100
5th April	Babu Jadu Nath Mookerjee, Head Master, Sanskrit College	50
5th April	Babu Shashi Bhusan Chatterjee	50
5th April	Babu Nilmani Mookerjee, M.A., B.L.	50
9th April	Babu Bhagabati Charan Mullick	200
9th April	Babu Naffar Chandra Bhatta, Subordinate Judge	100
10th April	Babu Shamchand Mitter	500
10th April	Babu Hemchandra Banerjee, Pleader, High Court	250
12th April	Maharaja Narendra Krishna Dev Bahadur	1,000
12th April	Hon'ble Durga Charan Law	500
19th April	Rai Rajendra Mullick Bahadur	1,000
21st April	Dr. G.C. Roy, M.D., F.R.C.S.,	50
23rd April	Rai Mahendra Nath Bose Bahadur, Ist Subordinate Judge, Alipore	500
23rd April	Rai Brajendra Kumar Seal Bahadur, Subordinate Judge, Alipore	300
24th April	Hon'ble Ramsankar Sen Rai Bahadur, Deputy Magistrate, 24-Pargunnahs	300

26th April	Babu Dinabandhu Mookerjee, Sibpore	100
26th April	Babu Subaldass Mullick	500
27th April	Khetter Mohun Bose, Exec. Engr. Chittagong	300
29th April	Babu Kalikadass Dutt, Dewan, to the Maharaja of Kuch Behar	200
29th April	Babu Radhikanarayan Ghose, Ast. Engr. 24-Pargs.	100
4th May	Babu Amritalal Chatterjee, Sub Judge, Berhampore	200
9th May	Radhikaprasanna Mookerjee, Deputy Inspector of Schools, 24-Paragunnahs	200
9th May	Babu Brajnath Mookerjee, Krishnagar	100
9th May	Babu Kalicharan Ghose, Dy. Mag. & Collr, 24-Pargs.	200
16th May	Babu Jadunath Ghose, Deputy Magistrate, Arrah	100
16th May	Raja Ram Ranjan Chakravarti Bahadur, Hitampore	500
17th May	Pandit Mahes Chandra Nyayaratna,	1,000
19th May	Babu Madhab Roy, Ex. Engr, Sitamarhi	200
20th May	Babu Kalikissen Tagore	2,500
24th May	Babu Radhikaprasad Mookerjee, District Engineer, 24-Pargennahs	300
31st May	Babu Rajendranath Mitter, Hd. Asst., Bengal Office	100
8th June	Babu Prankissen Mookerjee of Tallah	50
13th June	Rai Annadaprasad Roy Bahadur of Kasimbazar	4,500
15th June	Babu Bipinbihari Dutt, Govt. Pleader, Midnapore	500
25th June	Babu Srinath Mookerjee, Khardaha	50
21st July	Babu Mahendranath Mookerjee, Meherpore	50
24th July	Babu Ramaksaya Chatterjee, Dy. Mag., Tumlook	100
1st Sept.	Hon'ble Newab Mir Mahomed Ali	500
16th Oct.	Babu Dwarkanath Banerjee, Junior Govt. Pleader, High Court, Allahabad	250
7th Nov..	Babu Rakhaldas Halder	200
7th Nov.	Babu Rajkrishna Mookerjee, M.A., B.L.	100
17th Nov.	Babu Assutosh Dhur, Attorney-at-Law	500
17th Nov.	Prasannakumar Sarvadhikari, Principal, Sanskrit College	200
19th Nov.	Babu Janaki Nath Ghosal	100
20th Nov.	Rev. E. Lafont, S.J., Rector, St. Xavier's Coll.	100
23rd Nov.	Babu Kanti Chandra Banerjee	100
28th Nov	Babu Ananda Chandra Chatterjee	250
1st Dec.	Babu Paramartha Ganguli	100
3rd Dec.	Babu Chandi Lal Singh	1,000
3rd Dec.	Babu Chandra Sekhar Banerjee, Dy. Mag., Bhodua	100
4th Dec.	Babu Russick Lal Banerjee, Proprietor, Mirzapore Medical Hall	200
12th Dec.	Raja Odoy Pertap Singh Bahadur, Bhinga	500
12th Dec.	Babu Nilmadhab Mookerjee, Demonstrator of Anatomy, Calcutta Medical College	500
12th Dec.	Babu Gurudas Banerjee, M.A.,B.L., Pleader, H.C.	100
12th Dec.	Babu Mahendranath Mookerjee, E.I.. Railway	50
18th Dec.	Babu Bhudev Mookerjee, Inspector of Schools	400

18th Dec.	Babu Durgamohan Dass	250
18th Dec.	Babu Anurup Chunder Mookerjee, Jonye	100
21st Dec.	Babu Baikuntha Nath Sen, Saydabad	150
28th Dec.	Babu Radha Charan Sen, Berhampore	100
31st Dec.	Maharani Shammohini, Dinagepore	2,000
31st Dec.	Rai Radhagobinda Raya Bahadur, Dinagepore	1,000
1876		
1st Jan.	Babu Kashi Nath Biswas, Subordinate Judge	100
10th Jan.	Babu Chhakkanlal Rai, Chuckdighi	500
11th Jan.	Babu Keshab Chandra Sen	50
12th Jan.	Babu Surendra Nath Banerjee	500
12th Jan.	Dr. Rajendralala Mitra Rai Bahadur	100
14th Jan.	Babu Ananda Mohan Bose, M.A., Barrister-at Law	100
14th Jan.	Babu Sarrat Chundra Ghose	50
14th Jan.	Dr. W.E. Dhanokati Raju, Madras	50
14th Jan.	Babu Bankim Chandra Chatterjee, E.A., B.L. Deputy Magistrate	500
14th Jan.	Babu Ram Doss Sen, Zemindar, Berhampore	150
14th Jan.	Babu Brahma Mohan Mallik, Offg. Inspr, of Schools	200
14th Jan.	Babu Sri Nath Chunder, Attorney at Law	100
14th Jan.	Babu Tarini Charan Ghose	100
14th Jan.	Babu Jadu Nath Ghosh of Messrs. Newmen & Co.	50
14th Jan.	Babu Khetter Mohan Banerjee, Sibpore	100
14th Jan.	Babu Ram Chandra Mookerjee Sibpore	50
14th Jan.	Babu Hem Chundra Banerjee, L.M.S. Sibpore	50
15th Jan.	Babu Kishori Mohan Sen	100
26th June	Babu Bijaya Kissen Mookerjee, Utterpara	500
26th June	Babu Nilambar Mookerjee, Chief Justice, Kashmir	1,000
26th June	Babu Mahendra Nath Ghosh	100
26th June	Babu Kali Prasanna Mookerjee	100
26th June	Babu Har Govind Mookerjee	100
26th June	Babu Piyari Lal Sen	50
26th June	Babu Jogendra Chandra Mookerjee, Road Cess Overseer, Baraset	50
26th June	Babu Piyari Mohan Mookherjee, M.A. B.L. of Uttarpura	300
22nd July	Babu Rameswar Malia, Zamindar, Searsole	1,000
22nd July	Rai Grish Chandra Dass Bahadur, Dewan Government Toshakkana	500
23rd July	Babu Ashutosh Dhur (Junior), M.A., B.L.	100
29th July	Babu Bhujendra Bhusan Chatterjee	100
29th July	Babu Bhairab Chunder Banerjee, Pleader, High Court	200
29th July	Babu Piyari Mohan Banerjee, Bow-Bazzar, Calcutta	100
29th July	Babu Pramada Charan Banerjee, Munsif, Benares	100

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29th July	Babu Jogendra Nath Banerjee, Editor, Aryadarson	50
25th Sep.	Babu Nilmani Mitter (Further Subscription)	216
10th Oct.	Babu Hem Chandra Keer. Deputy Magistrate	200
14th Oct.	Babu Ram Kanai Adhikari	100
14th Oct.	Babu Kissen Mohan Mullick	50
14th Oct.	Srimati Nimi Dasi	100
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	Total	Rs. 95,746
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