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## The Indian Science Congress.

NO excuse is needed for making this issue of *Current Science* a special Science Congress Number. This Congress has become, during the twenty years of its existence, the one common meeting ground for men interested in all branches of science from all parts of India, and its meetings consequently, events of outstanding interest to readers of this Journal. *Current Science*, moreover, though not officially connected with the Congress, was started as a result of a discussion held during its last year's meeting. It is thus closely associated in its origin with the Indian Science Congress, and as both are intended to serve the same body of persons it seems likely that this informal association may continue and prove to be of the benefit to both.

The early history of the Indian Science Congress is recorded in the Proceedings of its Fifteenth Meeting in the Presidential Address delivered that year by Dr. J. L. Simonsen who had been largely responsible for its inception and early management.

After some preliminary correspondence, a meeting of seventeen of the foremost men of science in the country was held in the rooms of the Asiatic Society of Bengal under the Chairmanship of Sir Henry Hayden. This meeting decided that "The Asiatic Society of Bengal be asked to undertake the Management of a Science Congress to be held annually." But it was not till January 1914, that the first meeting was held in Calcutta with Sir Ashutosh Mukherjee as President.

The attendance was promising, though we should regard it as very small to-day and the total number of papers read was only a fraction of the number now presented to several of the individual sections. As was not unnatural, moreover, of these thirty-one papers twenty-five were from authors resident in Calcutta or other places in Bengal, bringing out very clearly the need for special facilities to enable members from all parts of India to attend as nearly as possible with equal facility. With the aid of the Board of Scientific Advice (since abolished) the Government of India were therefore persuaded to issue orders that selected officers from the various provinces, who could be spared, might be permitted to attend the meetings on duty. This, however, did not help those who were not Government servants, and in



their interests most of the Indian Railway Companies granted concession rates for the meetings. It is unfortunate that of these special facilities the latter was withdrawn during the war and has never been renewed, while the former is now severely restricted owing to general financial conditions.

The first Calcutta meeting resolved "That the Asiatic Society of Bengal be requested to publish for the present an account of the proceedings of the Congress and of such of the papers read as might be agreed upon by the Congress Committee and the Secretaries of the Society." The Asiatic Society of Bengal, founded in 1784 by Sir William Jones to enquire into "whatever is performed by Man or produced by Nature" within "the geographical limits of Asia", being (in spite of its name) an All-India Society with traditions and organization built up through over a century of steady work, publishing a Journal of world-wide circulation and reputation, and having among its members an influential body of men of science, was probably the only society in the country that could in this way give to the newly started Science Congress just the help that was needed to ensure satisfactory development. As a consequence the appointment of the Science Congress Secretaries was at first made subject to confirmation by the Society's Council, the Society's Treasurer was asked to be and still remains *ex-officio* Treasurer of the Congress and the Society's General Secretary was appointed and still remains an *ex-officio* member of the Congress Executive Committee.

Thus started and assisted in its growth, the Science Congress rapidly developed and its proceedings became so bulky that those of the tenth meeting (1923), though issued by the Asiatic Society in the same size and style as before, were treated as a separate volume instead of being incorporated in the Proceedings of the Society; and in 1926 the finances of the Science Congress were entirely separated from those of the Society.

During all these years the constitution adopted after the first few years of development remained in force with a few slight modifications. During the seventeenth meeting (1930), however, a special discussion of the constitution was held to voice a growing body of opinion that the time had come for the framing of a new constitution to suit the altered circumstances that had arisen as a result of the rapid and healthy growth that had taken place since those

early days. As a result a sub-committee was appointed to look into the whole matter, and a carefully revised constitution was finally adopted at the eighteenth meeting, held at Nagpur in 1931.

The Indian Science Congress has thus become a well-established organization. What has it accomplished in the past? What should be its aims to-day? And how can these be best achieved?

Persons interested in scientific problems have met together annually to listen to or read an immense number of papers of varying interest and this is about all that can be recorded in its Proceedings. Judged by its printed record alone we doubt if anyone could regard the meetings of the Science Congress as worth the time and energy spent over them by secretaries, committees and members who leave their work and often travel great distances to attend. But the printed record can describe only the dry bones and not the life of the meetings to the maintenance of which they are, nevertheless, essential. As pointed out by Lord Pentland in welcoming the second meeting of the Science Congress to Madras, "We are all aware that the value of such meetings as this does not lie wholly in formal meetings, and that the opportunities of intercourse are perhaps as valuable as the formal meetings of such a Congress. It must be a great encouragement to the workers in science as well as in other branches occasionally to meet and compare results, to get to know one another, to have the many advantages of personal and social intercourse which a few days together must bring to isolated workers in so large a field, especially in so large an area as is represented by the term India."

We are inclined to go still further and to regard such opportunities of intercourse as probably the most valuable function of the Science Congress. And Dr. Simonsen gives this as the main reason for its foundation, saying that when he and Prof. MacMahon first arrived in India "Coming as we did from large English laboratories, we at once felt the great lack of any scientific intercourse. Not only was there neither in Lucknow nor Madras any scientific society, but in addition there was a complete absence of any scientific atmosphere. At that time, if we except the Asiatic Society of Bengal, the only opportunities afforded for scientific discussion were the somewhat irregular conferences promoted by the Government of



India, such as Sanitary Conferences or Conferences of Agricultural Chemists. These were purely official gatherings, and it occurred to Prof. MacMahon and myself that scientific research might be stimulated if an annual meeting of workers somewhat on the lines of the British Association could be arranged. We felt that not only would the direct personal contact of workers be of great value, but also that the general public would be brought to realize the importance and value of scientific research."

That the Indian Science Congress has amply justified its existence by the opportunities it has provided for personal intercourse between scientific workers is clear. But that the curtailment imposed last year on the facilities hitherto granted by Government to its servants to attend the meetings is bound to have unfortunate results in regard to this is equally clear and calls for immediate and careful consideration. It seems to us that the least that Government can do is to permit such of its servants as can be spared to attend on duty at their own expense, as some Governments did last year, and to urge all Universities and other bodies employing scientific workers to do the same. But in a country of the size of India this alone will not solve the difficulty. The holding of the meetings at a time which permits of members attending availing themselves of the Christmas concessions granted to the public by the railways has proved a suitable alternative to the special concessions for the meetings that were in force for a short time earlier on. The Science Congress is now so well established and scientific workers so keen to benefit from its meetings that these arrangements would doubtless suffice to ensure a large attendance. But it would almost certainly be found, as at the first Calcutta meeting, that workers from the more distant parts of the country were far too few adequately to admit of the personal intercourse between workers from widely separated places that so particularly need promoting, or even to provide proper continuity of personnel between one meeting and the next.

Something is evidently needed to facilitate the attendance of distant members, especially such as have long experience of the Science Congress and have proved themselves of special value in connection with its meetings. How this can best be secured it is difficult to see. The grant of travelling allowance by Government to its servants was

a great help and would reduce the problem to much smaller proportions if it could be restored. But even this is not a complete solution, for its help is confined to those who are Government servants. We feel that efforts should be made not only to secure the renewal of this privilege to Government servants but also to encourage the formation of a fund, probably by donations and legacies, from which the Congress would itself give similar assistance to those permanent members who do not hold this position, especially such as are office-bearers in the different sections.

We feel, further, that the reading of a paper is not in itself a sufficient reason, nor even the most important reason, for the granting of such assistance. Indeed, we have even heard it suggested that the multitude of papers received, in certain sections particularly, good enough in themselves but of so limited an interest as to be more of a hindrance than a help to the progress of the meeting, has been in no small measure the result of a belief among Government servants that unless they had a paper of some sort to read facilities for attending the Science Congress would not be granted. That the value of a particular person to the Congress meetings, or of the Congress meetings to his work, is not at all necessarily connected with the reading of a paper will, we hope, be recognized and always be borne in mind by those with whom the granting of facilities to particular persons rests.

The second object for which the Indian Science Congress was founded has unfortunately not been by any means so fully realized. Public lectures, it is true, form a regular feature of the meetings, but to judge from the audiences they seem to appeal more to the members of the Congress than to the general public. This is, perhaps, inevitable as things stand at present and may well be regarded as more the fault of the public than of the Congress, but it is none the less regrettable.

In at least one instance, the foundation of the Madras Fisheries Department Marine Biological Station on Krusadai Island in the Gulf of Manaar, Government action in the interest of scientific workers and students has been initiated as the direct result of action taken by two of the sections of the Congress jointly.

Lastly, is it too much to hope that *Current Science*, born at the last meeting



of the Congress, may be instrumental in spreading abroad its aspirations and achievements among other news of scientific

interest, more widely than is likely to be directly possible through any printed proceedings of meetings?

### Presidential Address.

By Dr. L. L. Fernior, O.B.E., D.Sc., A.R.S.M., M.Inst.M.M., F.A.S.B., F.G.S.

#### I.—GENERAL.

**T**O accept an invitation to preside over the Indian Science Congress is to accept a great honour, and I thank you gratefully, fellow-scientists, for this. But it is also to undertake a great responsibility, not the least portion of which is to deliver a Presidential Address at the commencement of the Session.

Before dealing with the special subject of my address, it seems desirable that I should first notice a few events and matters of interest or importance to scientists in India, including a reference to three of your Past-Presidents.

The first is Dr. Martin O. Forster, your President at the 12th Congress held in Benares in 1925. He is due to retire shortly from the responsible position of Director of the Indian Institute of Science at Bangalore, a post that he has held for over 10 years. As scientists, we thank him for the fruitful work he has done at Bangalore in supervising and stimulating the development of research; and as friends we wish him happiness and a further spell of usefulness on his return to England.

Dr. Forster is to be succeeded by Sir C. V. Raman, your President at the 16th Congress held at Madras in 1929. The high quality of Sir Chandrasekhara's work at the Indian Association for the Cultivation of Science in Calcutta and as Palit Professor of Physics at the University of Calcutta, and his inspiring leadership in the development of a school of workers in Physics, is a happy augury to the application at Bangalore of a further stimulus to scientific research at that southern centre. Calcutta's loss will be Bangalore's gain. At present Calcutta may be regarded as the centre of scientific research in India; but, with the transference to Bangalore of one of her leading investigators, she will have to guard her laurels.

The third Past-President I wish to mention is Lt.-Col. R. B. Seymour-Sewell, who is leaving India in April on leave preparatory to retirement from his post as Director of the Zoological Survey of India. We are not,

however, at once to lose his services completely, for he has been appointed to lead the Sir John Murray Oceanographic Expedition to the Arabian Sea. Many of you are familiar with the results of the famous research expedition of H.M.S. *Challenger*, which, during the years 1873-76, explored the oceans of the world. The results of these researches are embodied in a monumental set of volumes issued over a period of nearly two decades under the editorship, first of Sir C. Wyville Thomson and later of Sir John Murray. The survey of the oceans was not, however, complete, the study of the Arabian Sea being omitted. Sir John Murray in his will left a sum of money for this survey, and now that it has been decided by his trustees to complete the task, they may be regarded as very fortunate in having been able to secure the services of Col. Sewell, with his wide experience of oceanographic research obtained as Surgeon-Naturalist to R.I.M. *Investigator*. We wish Col. Sewell every success in this new field of activity.

To one other scientist I must refer, namely, Sir Ronald Ross, who died at the age of 75 during the past year. You are all aware of his discovery of the method by which the parasite of malaria enters the human body, and of the enormous development in tropical medicine that has followed upon that epoch-making discovery. Ross' work was done in India and it has led to untold benefits to millions of inhabitants both of India and of other tropical countries. Sir Ronald left India before the foundation of our Congress, so that we have not had the privilege of his presiding over one of our gatherings. Nevertheless, we shall honour ourselves by recording our great loss in the death of one of the most distinguished scientists who has ever worked in India.

An event of major importance to the development of science in India during the past year was the decision made by a group of scientists during the last session of the Indian Science Congress at Bangalore to publish a scientific journal on the lines of