

THE INTERNATIONAL SCIENTIFIC CATALOGUE. BY JAMES BAIN, JR.

(Read 17th December, 1895.)

The discussion of the subject of a Scientific Catalogue is singularly appropriate in the Institute at this time, when the Library is being placed on a new footing and arranged for scientific work. The fifty years which have elapsed since the formation of this Institute have witnessed the establishment of an enormous number of similar societies, specializing their scope more and more, until few departments of scientific work are without their organization and printed transactions. It is estimated that there are now published, more or less regularly, 30,000 scientific journals, partly the production of 565 medical and 6,000 scientific societies, and partly published independently. The total number of papers included in these journals, transactions and memoirs is further estimated at 600,000 annually, or an issue of nearly 2,000 per day.

The reasons for the immense increase in this class of publication are not hard to find, and give no indications of a decrease in the immediate future. They are, first, the increasing number of abstruse, valuable papers, which journals dependent on subscriptions cannot see their way to print. These can only be of value to the few, and as scientific men are, as a rule, not wealthy, they are glad to get either the assistance of some society or direct aid from Government. This, freely given, has encouraged the development of memoirs in pure science. Secondly, our universities have so largely adopted the system of post-graduate courses, in which each graduate is encouraged to produce his thesis, and which are published under the name of university studies. And, thirdly, because science has become so specialized that men engaged on minute portions of the work are drawn together to support a special journal where their discoveries and discussions may be certain of a small but appreciative audience.

It is quite evident that no person is able to follow all the scientific publications of the day, even when restricted to one of the great divisions, and that the necessity exists for some means of obtaining a knowledge of at least the titles of those published within a fixed period, and that the catalogue produced by any one society would be both imperfect and expensive. Let us take the Canadian Institute Library as an illustration of what can be done with limited means. We have, in addition to the unbound Transactions, about 8,000 bound volumes, containing on an average twenty papers each. These would require, with a single entry under the author's name, 160,000 entries. An average cataloguer cannot do more than thirty per hour, if allowance be made for all necessary stoppages. This, at seven hours per day, is 210, which, divided into 160,000, gives as the time required for the completion 762 days, or, allowing for holidays, nearly three years. But every student knows that an author's catalogue is only of partial value, and that it must be supplemented by a subject catalogue. This, then, doubles the period, and shows the impossibility of doing such a work single-handed. Many of the older societies, such as the Royal, Antiquarian, Civil Engineers, or Archæological, have, at intervals of 25 or 50 years, printed an index volume to their publications; but the number of these and the long intervals at which they appear, render them useless for the ordinary student. Practical men have seen that the only escape from the difficulty was by co-operation in a joint catalogue. Professor Henry, Secretary of the Smithsonian Institution, was the first to propose a combined catalogue, in 1847.