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The Universities and International Relations.<sup>1</sup>

AT a meeting of the British Academy held on February 25, Lord Balfour, Dr. J. W. Mackail, Sir Henry Newbolt, and Sir Rennell Rodd spoke in support of the endowment fund appeal of the British Institute of Florence. The publication of reports of these speeches has attracted general attention to the enormous importance of cultural relations between civilised peoples in view of what is to-day the supreme interest of European civilisation—the establishment of conditions of genuine and enduring peace and goodwill between the nations. Universities are concerned with these relations, first as subjects of study and research, and secondly as responsive to influences which the universities can and do exert on them. It is mainly the latter aspect with which we are at present concerned, but limitations of space prevent more than a passing reference to the influence of vacation courses for foreigners.

Year by year visitors from nearly every civilised nation come to study in British universities. Since 1920 a census has been taken annually in October of students from other countries in the universities and university colleges of Great Britain and Ireland, and it has been ascertained that their total number at that season of the year is between four and five thousand. It has varied but little from year to year. Most of them come at an age at which, whatever its prejudices, the mind is receptive to new impressions. They come eager to learn, many of them hold scholarships awarded on the ground of exceptional capacity for learning, and many assume, after they have returned, leading positions in politics, administration, education, commerce, and industry in their own countries. The character of the impressions they receive is, therefore, a matter of no small importance. A very telling phrase, indicative of the importance of such impressions, was used by a professor of Harvard medical school when, speaking as exchange professor at Berlin in 1912, he described how, owing to his studying in a German university, he had become an "intellectual subject of Germany."

The universities of Great Britain and Ireland receive also from time to time university teachers from other countries. Such visits are generally for the purpose of delivering one or two lectures, and accordingly brief. In the few cases in which they extend over a whole term and the visitor has opportunities of entering fully into the life of the university, as in recent exchanges between

<sup>1</sup> *The Educational Record* (Quarterly Journal of the American Council on Education, Washington, D.C.), January 1925,—article on International Relations, by Dr. D. A. Robertson. "Syllabus on International Relations," by Dr. P. T. Moon (The Macmillan Co., 1925, pp. 276), issued by the Institute of International Education, and to be followed shortly by a companion volume designed to appeal to the general reader as well as the college student. *Documents concernant l'expansion scientifique et universitaire de la France* (Paris, Les Presses Universitaires de France, 1923).

Bâle and Cambridge, Bâle and Manchester, Cape Town and Liverpool, and Harvard and Oxford, they are capable of contributing substantially towards the promotion of good feeling between the countries which they represent.

The number of British students who resort to foreign universities for study and research has not been ascertained. Apart from attendance at summer vacation courses in language and literature, it is probably not large. During the past few years, however, a rapidly increasing flow of British students to the United States has been created by the institution of a number of fellowships and scholarships, notably those of the Commonwealth Fund, and the Laura Spelman Rockefeller, the Frances Riggs, the H. P. Davison, the Jane Eliza Procter, and the Clarence Graff foundations. When these are in full operation they will maintain some seventy British students in American universities.

During the War we were roused to a perception of the importance of fostering cultural relations with other countries. For a time "propaganda" was a word to conjure with, and the things for which it then stood were given a recognised place in our defensive armoury. Plans were worked out in detail for establishing a book distribution depot and a number of institutes in Continental countries, for encouraging the study of the English language and literature. These plans were about to be put into execution when the War came to an end, and, in the general retrenchment of establishments which ensued, they were hastily abandoned as being superfluous in time of peace. With the single exception of the British Institute at Florence, which is entirely independent of Government support, we have no establishments in European countries charged with the duty of diffusing knowledge of British civilisation.

Another war-time plan with similar objectives was devised by Lord Balfour in consultation with the universities of the United Kingdom in May 1918. This plan, for sending a Universities Mission to the United States, did not depend on the creation of any official machinery and was forthwith carried into effect. The missionaries sowed their seed and left it to thrive or perish as might be, bringing back with them a great store of knowledge of American universities, in the acquisition of which they had established many friendly personal relations. The precedent thus set was followed by missions, similar but on a smaller scale, to France and to Belgium in 1919, and a conference of British and Swiss universities at Bâle in 1922.

Although it was no part of the plan for the Mission to the United States to create any permanent organisation, Lord Balfour took the opportunity of pressing upon the universities the desirability of an "organ of expression" which should, among its other functions, represent them

in their relations with the universities of other nations. The suggestion bore fruit in the constitution of a standing committee of the executive heads of the universities of Great Britain and Ireland, the existence of which facilitated the organisation of the later missions.

As a result of discussions arising out of the report of the Mission to the United States, a committee of the Universities Bureau was formed for the purpose of promoting interchange between teachers and students of the home universities and those of the universities of the United States and also of other parts of the world. With no funds at its disposal, and no prospect of obtaining any to meet the expenses incidental to such interchanges, the committee could not be expected to achieve much: nor, in fact, did it.

In matters of this kind, countries with autonomous universities are at a disadvantage compared with those in which the universities are controlled by the State, as in France and Italy. In March 1919 the Ministers of Public Instruction of these two countries concluded an agreement for the organisation of exchanges of professors and students "afin de rendre les relations intellectuelles des deux pays plus étroites et de mieux faire connaître de part et d'autre leur développement littéraire, scientifique et pédagogique." Later in the same year, agreements with the Ministers of Public Instruction in Rumania and Jugo-Slavia provided for seconding French professors for service in those countries. Agreements made by the French ministry in 1921-1923 with Belgium, Luxembourg, Poland, and Czecho-Slovakia provided not only for systematic interchange of professors and students and reciprocal recognition of studies, diplomas, and professorial service, but also for the setting up of permanent advisory commissions to ensure constant consultation and collaboration in the domains of scientific, literary, artistic, and pedagogic activity. Grants of money amounting to several millions of francs were obtained from the French treasury for bursaries and for remission of fees to enable foreign students to study in France.

It has been pointed out already that as soon as the War was over, the plans made for establishing British institutes in foreign countries were abandoned, on the ground that their expense was no longer justifiable. In France other counsels prevailed, a higher value being placed on such services. The Ministry of Foreign Affairs, through its Service des Œuvres françaises à l'étranger, and the Ministry of Public Instruction, through its Service de l'expansion universitaire et scientifique, have co-operated with professors and other savants, university councils, comités de patronage d'étudiants, and various associations, in a strenuous and sustained effort to make French culture appreciated by foreigners, an effort financed largely by the State.

Branches of the Office National des Universités et Écoles Françaises have been established in London and New York; the Institut Français at London, Florence, and Madrid have been maintained, and new institutes opened at Naples, Barcelona, Prague, Warsaw, Sofia, and Buenos Aires; a university mission with 24 professors of lycées and eight professors or lecturers in universities has been established in Rumania.

These establishments have greatly facilitated the interchange of students in various ways. At Prague, for example, the Institute conducted special elementary courses in the French language which enabled lawyers, doctors, engineers, artists, and scientific workers to qualify for French government bursaries. The New York director of the Office National reported in November 1922 that he had placed in the universities, colleges, and schools of the United States as professors of French 115 former bursary holders. During the previous year the number of French bursary holders in American institutions was 62 and the number of American bursary holders in France 60, while 116 students were recruited by the Office for study and travel in France. In 1922 there were 1392 Americans studying at French institutions as compared with 407 at British. The total number of foreign students in French universities that year, excluding vacation courses, was about 6000.

(To be continued.)

### Looking into Things.

*Concerning the Nature of Things: Six Lectures delivered at the Royal Institution.* By Sir William Bragg. Pp. xi+232+32 plates. (London: G. Bell and Sons, Ltd., 1925.) 7s. 6d. net.

TO deal with the "nature of things" as seen by modern physics in a course of six lectures to a juvenile audience is indeed a formidable task, and there are probably few besides Sir William Bragg who could have attempted it with any prospect of success. That success was achieved by the lectures there can be no manner of doubt to any one who had the good fortune to be present. The personal charm of manner of the lecturer and the beauty of his experimental illustrations was a great help, and no doubt many of his audience were carried smoothly along on the stream of his argument, in spite of the fact that the real inwardness of much of it must have been beyond their immediate understanding. The lectures cannot have failed to stimulate a vital curiosity as to the nature of things in some of the young hearers, and may perhaps have laid the foundation of more than one future career to be devoted to the successful deeper delving into that very "nature."

These same lectures, presented in the form of a book, are, however, a much more difficult matter. Cold print has to take the place of the living word, and illustrations, however well done, and descriptions, however clear, can never produce the same effect as actual experiment. To those who have heard the lectures the book must be most welcome as a permanent record in which they can study at greater leisure the facts and ideas put before them. To those reading the book by itself, however, we fear that its contents may prove a little difficult from the "juvenile" point of view. It is, of course, amazing to an older generation how much the more advanced juveniles of to-day are able to assimilate and understand, and possibly to a young mind coming fresh to such a field of ideas there may be less difficulty in following and adopting the writer's line of thought than to an older mind already burdened with many conceptions and some misconceptions. None the less, if one compares the book with the records of similar lectures by Tyndall or Faraday—and it fully deserves such a comparison—it seems to imply a much greater degree of scientific pre-education. To the more mature reader, on the other hand, it offers a delightful presentation of one of the latest developments of physical science in a most agreeable form. The scientific investigator who possesses the somewhat rare gift of lucid and attractive exposition owes a duty to the world to use that gift in order to open up the new fields of discovery to a wider circle, and that duty is beautifully performed in this book.

Broadly speaking, the book deals with the atoms and the ways in which they are arranged or grouped in gases, liquids, and solids. The first chapter deals with the structure and size of the atom, full use being made of the knowledge gained from radio-activity and the ionisation-track method of Wilson. The author takes care to state that the atom cannot be regarded as a hard sphere and describes its "astronomical" construction; afterwards, however, he follows the path of least resistance and speaks and evidently thinks of atoms in terms of spheres having definite sizes—a fiction which, though convenient, is apt to prove very misleading in detail. In the second chapter the nature of gases is discussed, with the aid of many beautiful experiments and analogies, while the third deals with the nature of liquids.

In the remaining three chapters the author comes to his own proper field of research, dealing with the nature of crystals, beginning with the diamond, studying ice and snow, and ending with the metals. Incidentally, however, many other things are touched upon, among them the simpler aspects of the author's own work on the measurement of organic molecules by means of X-rays, which is undoubtedly one of the