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LIFE OF SCIENCE is the organ of the CIRCLE FOR THE SCIENCE OF SCIENCE (Konwersatorium Naukoznawcze) in Kraków, Poland. The Circle was founded in 1945. Its purpose is to carry on the scientific research work, to popularize all the branches of the science of science, i. e.: theory, methodology, history, sociology, psychology and organization of science, to improve publishing conditions and to promote planning activities. The Circle of the Science of Science facilitates the exchange of information and the collaboration of the representatives of all scientific lines interested in the scientific knowledge of science.

The President of the Circle is Mieczysław Chojnowski, Vice-President: Bogusław Leśnodorski. Secretary: Tomasz Komornicki. Address: Kraków, Słowackiego 66, Poland.

ON THE SOCIAL RESPONSIBILITY OF THE SCIENTIST

by JÓZEF KORPAŁA

COMMENTING on the letter in which Professor Norbert Wiener of the Massachusetts Institute of Technology protests against the misuse of his scientific results*, the author discusses the role and the tasks of science in the contemporary world. Science helped to win the war and this again caused an increase of authority of science, though the publication of scientific results was restricted. The rapid developments in science and industry are interrelated, and here too, limitations of freedom are to be observed. The scientists realize the danger of a catastrophe threatening our culture and recently they begin to stress the social responsibility of the scientist for his

* The letter appeared in ATLANTIC MONTHLY, also in the BULLETIN OF THE ATOMIC SCIENTISTS, vol. 3, No. 1, and DISCOVERY, vol. 8, No. 5. We give a full translation.

results. They seek an ally in the peace-loving society. They feel they must oppose the misuse of science, this basic factor of the development of our civilisation, so they rise in its defence. The extreme difficulty of this problem proves how urgent is the need of a common effort, supporting the insufficient, isolated actions like Professor Wiener's.

CIRCLE FOR THE SCIENCE OF SCIENCE, KRAKÓW

PLANNING AND FINANCING OF SCIENCE THE PEDAGOGICAL TASKS OF ACADEMICAL SCHOOLS

by WŁODZIMIERZ ANTONIEWICZ

THE QUESTION of the sphere of teaching in the academical schools is one of the most important and must be settled anew. The general principle ought to be that the academical schools give a foundation for scientific thinking and a scientific outlook. Of no less importance are such questions as specialization of some academical centres, regionalization of a given sphere of researches in certain schools, hierarchy of interests and directions of studies. Particularly, there arises a dilemma whether the main researches in the Polish academical schools should concern Poland directly or the problems regarding the neighbouring countries and the rest of the world as well. Bearing in this dilemma the opinion should be held according to the real aims and tasks of the academical schools which require the compatibility of the main scientific and technical interests. The problems in which Poland is mostly interested cannot be solved before the whole scientific production is settled. As to the specialization of the individual academical schools it is necessary in Poland because of the small number of scientists and the immense devastation in many fields of the scientific work.

There is no doubt that a reasonable and looking far ahead organisation of science and education must be based on a planning undertaken to modernize the scientific institutions i. e. to stimulate the progress and development of science, bearing still in mind the needs of the recovering state. The genuine estimating and realization of budgets for scientific aids and researches of the academical schools is one of the most important tasks of that planning. The weakest point of the Polish academical schools was the extreme misery of scientists along with utmost poverty of equipment of the scientific institutions. This was the result of the defective planning that presently should be improved by basing it on an accurate budgetary estimate fixed by the national treasury for the usual credits of individual schools. Moreover the rigid division of all amounts should be set right by a reasonable and elastic financial economy. The pedagogical tasks of the academical schools present difficulty because of the vague meaning of the word „pedagogy” (forming of character, civic and state education, foundation of a wide outlook, or

rather care for a high ethical level of academical life?). Anyway, this problem must be considered from the point of view of tasks and duties of the academical schools and of existing possibilities. The actual possibilities of average students are also to be remembered. The most vital matter is the maintenance of a high level of adequate activities of all schools, i. e. to make the professors and lecturers responsible for the scientific level of students and for a conscientious and right selection of the youth fit for academical studies. All students should be taught how to become fully valuable citizens, for it is not enough to think independently and to be keen on the scientific or professional activities. This forces the school to fight seriously the students' disrespect to duties which are obligatory for those entering the college. It is especially urgent to overcome the lack of subordination so deep-rooted among the undergraduates. The cultivation of science itself which has proved to influence greatly the morale of young university scientists is one of the foremost means, among many others, leading to a higher ethical level of the undergraduates. It is the target for the students themselves as well as for the whole teaching staff to attain the positive results in this field. The personal scientific work of professors, the level of the work in laboratory of seminary, the closer contact between the students and their lecturers are decisive in this case. Finally, the author points to the scientific and educational significance of the scientific expeditions, museums as well as the extramural research institutes, and emphasizes the interrelation which should be established between them and the universities and other academical schools.

UNIVERSITY OF WARSAW.

ARCHAEOLOGY IN POLAND

by KAZIMIERZ MAJEWSKI

BEFORE the war Archaeology was still underestimated by the Polish Government, in spite of its rapid development abroad. There was no cooperation among the archaeologists and nobody was taking full advantage of the gathered collections and materials which in many cases were being neglected for years. As to scientific publications, the archeologists' contributions were rather irregular, though their productions did not lack vitality. Planning is an indispensable factor in science, as it is in economical and cultural life, and the existence of an efficient instructing centre is an indispensable condition of reasonable planning. Hence the need of a State Archaeological Institute, to plan a closer co-ordination of various sections of archaeological research. All groups of archaeologists should be represented in the Institute i. e.: classical, prehistorical, oriental, biblical, old-Christian, early historical and historical, the membership being granted to everyone who devotes himself exclusively to scientific research. An Institute of this kind could in no time become an authoritative body influencing and planning not only the scientific research but also the teaching of Archaeology at the Universities.

The author of the article, supplies a full, detailed plan for the organisation of the above mentioned Institute. He discusses its staff and chairmanship, its administration and residence, the appointment of committees and the formation of departments. He mentions the similar institutions existing abroad, offers suggestions concerning the libraries and museums, calls attention to the question of preserving the historic monuments and finally talks over the matters of publicity and publications.

UNIVERSITY OF WROCŁAW

MEN OF SCIENCE IN THE LIGHT OF MEMOIRS

TWO REVIEWS have been inserted under the above title HENRYK BARYCZ (Jagellonian University, Cracow) writes about the memoirs of Fryderyk Hechel, Professor of forensic medicine and of history of medicine at the Jagellonian University, in the first half of XIX century (died 1851). The memoirs are of great ethical and cultural interest and throw a copious light upon the conditions and situation of the Polish science in the sad period following the fall of the November Insurrection, which was carried on in this country against the Czarist Russia (1831). In the course of his numerous travels Hechel visited several European countries and met many outstanding persons. He considered himself a progressive man.

FRYDERYK PAUTSCH (The Naval and Tropical Medicine Institute, Gdańsk) reviews *The History of One Life* by the contemporary Polish microbiologist Ludwik Hirszfeld. This eminent scientist who was cruelly persecuted for his Jewish origin during the German occupation and survived the tragedy of the Warsaw Ghetto, shows in his memoirs a strength of moral principles which cannot be too highly praised. Referring to the importance of science and the personal satisfaction it gives to the research workers, Hirszfeld advocates Nicolle's opinion: „It is not the desire of self-glorification that makes them (the scientists) devote their lives to scientific research. They simply seek to satisfy the insatiable desire of knowing and research is for them a delight in itself. Isn't it characteristic of a genius that he is sort of careless about his achievements? As soon as the others take possession of them, he will find new problems for himself. What is there that matters, for goodness' sake? Chimeras. There are enough Chimeras for everyone. Each of us can find as many as he likes".

Commenting on the two reviewed memoirs, the Editors of LIFE OF SCIENCE express the opinion that the need of a new type of scientific worker is obvious enough in our time. What we want is a scientist fully conscious of the social function of science, who not only follows the line of his own delight and satisfaction, but is also capable to appreciate the social aspects of his investigations.

FACTS AND OPINIONS

THE THEORY OF KNOWLEDGE OF DIALECTIC MATERIALISM by *Witold Galeniski*. It is a large review of the above book written by *Narcyz Łubnicki*, professor of the M. Curie-Skłodowska University in Lublin, and published in Lublin in 1946. This book is summarized in English. The author assumes that: „The dialectic materialism, the marxist ideology, became such an important element of modern culture that theorists of different systems of thought were bound to examine this current as a systematic whole, to analyse in a critic mood its premises and its chief theses”.

Prof. Łubnicki critically reviews the so-called „general line” of that system of thought with its chief representatives: Marx, Engels, Lenin and Stalin; besides, he does not limit himself to the theory of knowledge only, but after a short history of Marxism he reviews the general assumptions of dialectics as well as the theory of nature and the historical materialism.

A valuable moment in marxian doctrine is the acceptuation laid on the primacy of praxis (activity) over the theory (thought). This moment enables the dialectic and historical materialism to fight successfully the scepticism and to take a positive attitude towards the creative genius of man in the surrounding real world.

SCIENCE IN POLAND

THE SCIENTIFIC LIFE OF TORUŃ by *Karol Górska*. The University of Toruń already projected in the pre-war times was finally founded after the war. The initial work met, of course, with enormous difficulties in consequence of the immense war devastions and death of the leading agents of the local Scientific Association. The Kopernik (Copernicus) University is to establish the centre of scientific resarches for the problems of Pomerania and all sea-coast. The scientific life has focused first in the old and worthy Scientific Association that restored its activity already in the autumn of 1945 and on the 19th—20th of February 1947 organizes the congress of historians from the whole of Pomerania. One of the results of that congress was the resolution to revive the publication MONUMENTA POLONIAE MARITIMA. Other sections of the Association have shown no less activity.

THE NAUTICAL SUBJECTS AT THE COMMERCIAL SCHOOLS OF THE ACADEMICAL TYPE by *Przemysław Małek*. The Polish State regaining its sea-coast of 500 km has to undertake the task of training a certain amount of specialists for maritime economy. The Higher School of Naval Trade in Gdynia formerly called Nautical Institute, has taken this task. This school is rather an experimental one for want of scientific experience in this field not only in Poland but also in Europe. Keeping to its theoretical character at the same time the school introduced lectures on the following subjects: customs-tariff, marine-insurance, knowledge of ship-cargo etc. Sea-questions are in-

cluded in the general study in other Polish commercial schools of academical type e. g. the Chief Commercial School in Warsaw, the Commercial Academy in Kraków, and the Commercial Academy in Poznań, for instance — transport and communication (Warsaw), organization of the international commerce (Kraków) or organization and administration of a port (Poznań); in the Higher School of Naval Trade 480 hours have been dedicated in separate lectures on the following subjects: maritime economy, history, law and administration. We can compare the programme and the aims of this School to the *Institut Supérieur de Commerce de l'État* in Anvers.

For a list of Scientific Periodicals in Poland see pages 218—234.

SCIENCE ABROAD

THE WORLD FEDERATION OF SCIENTIFIC WORKERS IN SERVICE OF PEACE. This article contains the literal translation of the speech delivered by prof. F. Joliot-Curie at the annual assembly of the Association of Scientific Workers in London on the 24th—26th of May of this year and published in the OVERSEAS NEWS BULLETIN of A. Sc. W., No. 8/1947. Prof. F. Joliot-Curie spoke about the role and tasks that stand in front of all associations of scientific workers in the sphere of organization of science as well as in all other activities in each country. He brought to light the social value of science; put forth a good number of important and urgent problems that science has to deal with in connexion with the tendency for increasing the standard of living on a national as well as international scale. He concluded the necessity of contact between all the associations of scientific workers and U.N.E.S.C.O.

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