SCIENCE

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A NATIONAL UNIVERSITY.

THE reconstruction of the University of Paris, the efforts in and out of the British Parliament to make a University of London, the great success of the University of Berlin, and the renewed advocacy of a National University at Washington, indicate a movement which, we believe, makes for the progress of education and science. There are dangers in centralization, but these are small in comparison with the promise of great centers, where specialization and coöperation can be carried forward to the degree demanded by the present state of learning and science.

It is not necessary to take up space in this JOURNAL to set forth in detail facts on which we are all agreed—that universities are necessary for the progress and even the preservation of our present civilization; that America should have universities equal to those of any other country; that the founding of new universities, such as Johns Hopkins, Chicago and Stanford has been productive of good; that the establishment by gifts or bequests of a university at Washington greater than any other would be received with universal satisfaction. It is, however, desirable to consider the objec-

tions that have been urged against the establishment, by the government, of a national university at Washington. These may be reduced to three: the cost of maintenance, the risk of political intermeddling and the alleged interference with existing institutions.

A national university should be supported by liberal appropriations, but the cost is not as great as is sometimes supposed. The annual salaries paid at Berlin amount to less than $200,000. The United States spends about $175,000,000 annually on its common schools. No one grudges this large sum, and yet it is spent chiefly for the benefit of the individual, whereas the higher education is chiefly for the benefit of the state. All the money spent on universities since the first beginnings at Paris and Salerno has been paid back by the results of the education of one man such as Faraday or Pasteur. Higher education in America has been liberally endowed by rich men, but if it is desirable to have these endowments it seems needless to be dependent on individual initiative. Whether the money come from endowments or from taxation it must be taken from the wealth of the country. It may represent a part of the extra price paid for each gallon of kerosene oil, or it might result from a tax paid on the $10,000,000 worth of precious stones annually imported and used chiefly for purposes of ostentation. We might as well wait for rich men to give our government ships of war as to be dependent on them for our educational institutions. A university supported directly by the people would have peculiar influence and special dignity.

There is, perhaps, a more serious question as to whether the representatives of the people at Washington are competent to manage a university. Might they not regard it as part of the spoils of victory? We think the risk is slight and transient. The Smithsonian Institution and the Military Academy at West Point have not become involved in practical politics, and the State universities have in nearly all cases not only remained non-partisan, but have set a salutary example to other departments. A national university should not offer patronage and high salaries, but permanency of office, the most perfect facilities for research and publication, the ablest students to teach and the best intellectual environment. It would by its own nature be self-conservative. A national university would not only be, in all probability, itself free from political influences, but would tend to preserve the scientific bureaus from these and to purify and elevate all offices under the government.

It may be said that our existing universities supply the need and that a new university would interfere with these. This was not the opinion of the heads of Cornell, Pennsylvania and Stanford Universities, who have been among the ablest and wisest advocates of a national university. The growth of the University of Berlin has not weakened the other German universities. A great national university would be the head of our educational system. It would not interfere with existing universities any more than these interfere with our colleges or our colleges with our schools. Our present universities consist chiefly of professional schools, on the one hand, and of col-

leges for the instruction of boys, on the other. They are, indeed, developing toward true universities, but nothing could better hasten and direct this development than a national university.

From a theoretical point of view it would seem that all the arguments which have been urged against the establishment of a national university turn out to be in its favor. The cost, the incompetence of government and the claim that existing universities suffice are, however, practical difficulties which we do not underestimate. Indeed, these are so evident that we should regard it as useless to advocate the immediate establishment of a great national university. We rather hope for a gradual growth from the national institutions already existing at Washington.

We have there great libraries, museums and laboratories, able investigators engaged in advancing pure and applied science, and younger men learning from them the methods of research. These are the essentials of a university. No university in the world includes so many or such able investigators, teachers and students of geology as the U. S. Geological Survey, and in many departments the work at Washington surpasses any American university in the amount of investigation accomplished and in the number of investigators trained.

We should recommend the development of the Bureau of Education somewhat in the direction of the University of the State of New York. Let it have power to regulate academic degrees and to confer them. Degrees may belong to an immature civilization, but this is just the kind of civilization of which we must make the best. Workers in the different government divisions and others having the proper preliminary education could, on presenting a thesis showing original work and passing an examination, receive the doctorate of philosophy, and this would qualify them as a civil service examination for promotion. The present Commissioner of Education, and perhaps the regents of the Smithsonian Institution, could govern the university. Examiners could be appointed from leading representatives of science and learning who would meet yearly for a week of convocation in Washington. We believe that, without radical changes and with nominal expense, there could be established at Washington a national university likely to become the world's greatest university.

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*SCIENCE AND PSEUDO-SCIENCE IN MEDICINE.**

ONE of the definitions given by Webster for the term 'science' is: "Truth ascertained; that which is known. Hence, specifically, knowledge duly arranged, and referred to general truths and principles upon which it is founded and from which it is derived; a branch of learning considered as having a certain completeness." Having this definition in view I think we are justified in speaking of medicine as a science. No doubt it is incomplete in many directions, but by the application of scientific methods of research such rapid progress has been made during the past fifty years that to-day medicine stands upon a substantial basis of 'truth ascertained' in all of its departments, and when we consider the breadth of the field covered by these various departments the lacunæ, in our knowledge, are no greater than in many other

*Read before the Anthropological Society of Washington, December 15, 1896.