MATHEMATICUS SPEAKS

an interview

An unanticipated result of the war has been the apparent awakening of the British public to the value of education. Though some of the tribunals have decided that teaching is not a work of national importance, unofficial opinion seems almost to have reached the position of regarding it as a "key industry." The educational system, every one is agreed, is in the melting-pot and the papers are full of suggestions, from all and sundry, as to the new moulds in which it must be fashioned during the reconstruction period. Whether this state of mind indicates a real conversion or is only a sort of temporary scare produced by evidences of the efficiency of the German technical schools, time will show. For the present, at any rate, speculation about the future of education in this country arouses almost as much interest as the problem of the ultimate adjustment of the relations between capital and labor.

I have lately had the opportunity of a talk on this and kindred topics with a distinguished Englishman who is especially well qualified to form a judgment upon them. He has seen New York and the limits of the British Isles for his home as a mathematician, and not merely as a mathematician pure and simple, but as a writer on the most abstruse of all subjects, the philosophy of mathematics. Not perhaps since Leibniz has so keen an intelligence devoted itself to the perplexing questions that may be classified under this heading. If one wished to reduce the average well-educated man to a confession of his own ignorance and mental incapacity, one could do nothing better than set before him a page taken at random from the treatise in which this writer has discussed the principles of mathematical science. Yet the author of this book, which can be intelligible only to a picked few, possesses a skill in popular exposition that caused him to be chosen to prepare an introduction to the problems of philosophy for the use of artisans and other self-educated students. No doubt he owes this power, in large measure, to his practical experience as a teacher, for he has spent many years in smoothing the intellectual pathway of undergraduates. The London weekly referred to him the other day as "the most intellectual of our philosophical writers," but as a man "of almost lonely distinction" in virtue of his personality, his gifts of style, his wide range of interests and knowledge, and the way in which he has infused his thought and feeling into the current of hundreds of young men's lives. "No living English man," said the same paper, "is a greater master of that kind of prose-writing which summons its readers to the examination of their frozen ideas and beliefs."
In my interview with Mathematicus for the purpose of this article, I asked him how he would account for the poor show the academic mind had made during the war. I instanced the general tone of the letters written to the newspapers by professors and other representatives of the culture and science of the universities, and the eagerness some of them had shown to strip themselves of the distinctions they had received from learned societies in the belligerent countries opposed to their own. That is easily explained, he replied. The reason is largely physiological. A person whose occupation is academic and sedentary has no outlet for the itch of activity. He easily gets excited and wants some means of expressing his emotions. The undergraduates and younger men - the academic people of military age - are not like that. They can go out and fight, and don't bother to be blood-thirsty. But if you cannot join the army and are yet enthusiastic about going your bit, the will that most naturally suggests itself is to write to the papers to say what scandalizes the other side are.

A correspondent of the New York Times recalled the other day the story of two Sir Humphry Davy, though his country was at war with France, who passed the time given by Napoleon through the French National Institute, for the most important scientific discovery of the year, and how he was not only admitted to the exclusive privileges in the Institute, but was entrusted with a chair of men of science in Paris, at which the health of the Royal Society of London was the first toast. Why was it? I asked Mathematicus, that such instances of entreaty of men of science in every country would be quite imposible to-day?

"You must remember," he said, "that the present war is more conscious than any since the break-up of the Roman Empire - or, at any rate, since the Thirty Years' War. It is more serious. It is more in the nature of a conflict in which the whole peoples are engaged. There is consciousness everywhere, and that brings it home to everybody. For another thing, you get the newspapers to influence public opinion. But even with all this, the same sort of thing as the boy incident which happen to-day. If the Governments don't allow it. Just before the war, it had been decided to ask me to deliver a course of lectures on mathematical subjects at a German university. Of course, if I proceeded to carry out that engagement neither the British nor the German Governments would allow me to do any such thing. But assurances have reached me from the university in question that it is hoped my visit is not postponed. These assurances were sent by an eminent professor who knew nothing of what attitude I might happen to take towards the war. There is good reason, therefore, to believe that, when the war is over and these Government prohibitions are removed, international cooperation in scientific matters will soon be resumed. I believe it will be resumed far more easily than many people think."

Mathematicus continued to me, from his own first-hand knowledge, the general impression of the large contribution Cambridge has made to the prosecution of the war. Almost every one among the younger men was either fighting or doing some sort of Government work. These offers of patriotic service, however, have not always turned to the most profitable account. Mathematicus mentioned the case of a distinguished tutor, personally known to him, who was employed by the War Office for several months in watching horses being groomed. After a while it occurred to some one in authority that, as a mathematician, he might understand something about projectiles. He was, therefore, invited to tackle a certain anti-aircraft problem at which other people had been working in vain for some months. The Cambridge man took hold of it and solved it in a day. Mathematicus agreed with my comment that such blunders could not have been committed in the navy. The navy, in peace-time, as well as in war, is constantly occupied with difficult technical problems, but that scientific skill can matter much in land fighting is almost a new idea in the army.

The future of Oxford and Cambridge after the war is beginning to arouse much concern in university circles, and Mathematicus endorses the general belief that great changes will be inevitable. "All that used to make the universities socially delightful will be gone. Their old traditions will be gone. That will be a necessary result of having a university that will be composed entirely of freshmen. There will be a great deal more of scientific teaching and less of what is called the education of a gentleman. I don't regret that altogether."

With respect to the proposals now being made in various quarters for the re-establishing of British education in general largely on German lines, in order to meet German competition, Mathematicus takes a rather pessimistic view. "You can't apply German methods to England," he declared. "The German is willing to work. You can't expect the same standard of industry here."

"Do you apply that reverence to education only, or to other things as well?" I inquired.

"I apply it to everything, without exception," came the prompt answer. "The way in which the German works would be intolerable to the Englishman. That is really the secret of German success - and of German failure, too. Germany's technical success and her psychological failure are both due to that. It is a sort of difference of character in the two nations which will not be altered. The German has more ambition and less desire for enjoyment. The Englishman feels: What's the good of dying a great man if I have lived miserably? The German never thinks
such thoughts."

The main result that Mathematicus anticipates from the war upon English education is that it will become more utilitarian. It will also be more a matter of routine. The schools will have to economize. Schoolmasters will have to teach larger classes. "The effect of the war on education will be unmitigatedly bad," was the verdict to which Mathematicus summed up the whole matter. "That, indeed, will be the effect on civilization as a whole. It will take two hundred years for the world to come back to the stage it had reached before the war."

"Then you don't accept the popular idea of the great stimulus that war gives to literature and the arts and the intellectual life generally?"

"Was there ever such talk?" he replied. "But look at the staff that writers of reputation are willing to publish as poetry nowadays."

To less pronounced was Mathematicus in his dismissal of the theory that the men who have been personally engaged in the war will prove to have been morally or intellectually transformed by their grim experiences. He admitted that they will be affected physically and nervously, but he emphasized very little difference otherwise, even in their opinions on political and social questions. "If a man goes into the war a Radical, he will come out a Radical and not otherwise," was his prediction. "As far as we can learn, the constant goes through the whole thing almost in a state of somnambulism. His feeling really is: This is a mostly job, but it's got to be done. It's something like cleaning out a stable."

I suggested that, even if these actual experiences in the trenches made no change, the habit of discipline civilians had acquired during their military service would make some difference to their future character and career. Mathematicus agreed that it might. But seemed to expect that the effect would show itself chiefly in sharpening the power of initiative. "During the war a man becomes accustomed to do nothing except by word of command and under a strong stimulus. When he returns to civil life, he will not have either the war of command or the stimulus."

If such forecasts come true, those neutrals who are scared at the prospect of heightened commercial competition from the present belligerents after the war are alarming themselves quite unnecessarily. Mathematicus seems to think that few of the returned soldiers will, for some considerable time, have energy enough left them for vigorous activity of any kind. Not only the returned soldiers, but the civilians, both men and women, who are now working at such high pressure in munition-making and other war tasks, will need a long period of recuperation before they are fit for anything aggressive, even industrially. Thus, loss of vitality throughout the general community will in itself make it impossible to restore at once the standard of civilization that prevailed before the war.

M.N.P.