

THE SITUATION OF SCIENTIFIC MEN IN RUSSIA

TO THE EDITOR OF SCIENCE: The information about Professor Pavlov conveyed in a letter to SCIENCE (March 12) is somewhat puzzling in its purport. It is customary to make announcement of events which actually occurred; as for instance birth, deaths, marriages, etc. It would be a most unique procedure to treat the public to news items like these: so-and-so has not yet been born, has not yet died, married, got an increase in salary. Why then this item that on a certain date A.D. Professor Pavlov *was not yet dead*?

It seems likely, therefore, that the only object of the note was to give publicity to a quotation from a letter of Pavlov to some other party to the effect that he was starving and instead of engaging in scientific pursuits was occupied in peeling potatoes. Now, this alleged quotation bears earmarks of a spurious nature. It undoubtedly belongs to that class of hoaxes which the daily press has been imposing upon its innocent readers with an invidious design. It is impossible to reconcile the two statements in the quotation, that Professor Pavlov is starving, and that he has so many potatoes to peel as to be obliged on that account to forsake his science. Even one not versed in the theory of nutrition would be skeptical about the probability of starvation in the midst of plenty of potatoes. (Consult Hinhede on the nutritional value of the potato.)

Like all statements intended primarily to force public opinion into a preformed mould, it is not what is actually said but what is indirectly implied that really matters. The quotation from Pavlov's letter is obviously calculated to rouse in us indignation over the sufferings of the distinguished physiologist. But does it not also insinuate a suggestion that the genius which was the man's great asset under the benign and enlightened government of the Czar of all the Russians has under the new régime become a crushing liability on him? So, ere we are moved to deep pity over Pavlov's unfortunate lot, let us re-

flect if with our well-meant sympathy we may not cause him more distress than comfort.

It so happens that I have some news of another venerable savant, Professor Timiriazev, distinguished botanist of the University of Moskow, an Sc.D. of Cambridge, a fellow of the Royal Society. As I have no "obvious" reason for hiding my informant, I may say that he is Arthur Ransome, whom I herewith quote:

He [Timiriazev] is about eighty years old. His left arm is paralyzed, and, as he said, he can only work at his desk and not be out and about and help as he would wish. A venerable old savant, he was sitting with a green dressing gown about him, for his little flat was very cold. He spoke of his old love for England and for the English people. Then speaking of the veil of lies drawn between Soviet Russia and the rest of the world, he broke down altogether and bent his head to hide his tears. I suffer doubly—he said—I suffer as a Russian, and, if I may say so, I suffer as an Englishman. My grandmother was actually English. I suffer as an Englishman when I see the country I love misled by lies, and I suffer as a Russian because those lies concern the country to which I belong, and the ideas which I am proud to hold.

The old man rose with difficulty, for he, like every one else in Moskow, is half starved. "If I could let them know the truth—he said—those friends of mine in England, they would protest against actions which are unworthy of the England we have loved together."

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RUSSIAN AND AMERICAN SCIENTIFIC MEN

TO THE EDITOR OF SCIENCE: In SCIENCE of March 5, I have noticed the report that Professor Pavlov, still alive in Petrograd last summer, was peeling potatoes when last heard from. Without wishing to jest on this truly pitiable situation, it may not be amiss to submit also the report that no small portion of the professors of this country are now likewise engaged in peeling potatoes or similar menial work, at any rate for a large part of their time. Under present conditions they can not get others to do such work for them.

The cause, here as in Russia, is the glorification of "labor"—apparently synonymous with cessation of labor, at any rate for a price proportioned to its value.

When a professor does not actually "quit his job," the public supposes he is giving the same service as formerly. In fact he may be simply meeting his classes as before, some ten or twenty hours in the week; the rest of his active time, which should be spent in preparation, study and research, is under present conditions too often dissipated in chores of house and garden, for which "help" is no more to be had. In effect the professor has "quit his job," for half time and in that half is situated somewhat like Professor Pavlov.

The irony of it is that the professor is the last man in the world to shirk his professional work, which is also his pleasure; but the topsyturvy economics of the day are forcing many to do so.

A MEMBER OF THE EXPLOITED CLASSES

QUOTATIONS

NITROGEN FROM THE AIR AND THE BRITISH GOVERNMENT

THE report of the Nitrogen Products Committee has at last been allowed to emerge from the seclusion of the government pigeon-hole, in which it has reposed, in type, for at least seven months. It is a voluminous document of over 350 pages, containing the results of nearly three years' work, largely voluntary, on the part of a number of scientific men, who in that period explored in great detail the statistical and economic aspects of the nitrogen problems and also supervised much experimental research. The latter was devoted especially to the Haber process for the synthetic manufacture of ammonia by the direct union of its elements, nitrogen and hydrogen—a process which, coupled with the oxidation of the ammonia to nitric acid, undoubtedly enabled Germany, cut off from supplies of nitrate from Chile, to continue the war longer than would otherwise have been possible. The general principles of that process were familiar enough in this country, but acquaintance

with the technique of its operation was confined to Germany. However, the committee made such progress towards remedying this deficiency that in their report they feel justified in recommending the immediate establishment of the process on a "commercial unit" scale in this country and its extension up to a minimum of 10,000 tons of ammonia annually.

For this purpose they suggest the utilization of a factory at Billingham-on-Tees. The Explosives Department of the Ministry of Munitions decided to start this factory in a hurry, and perhaps in advance of the technical knowledge available at the time, towards the end of 1917; but their attitude towards it was somewhat Laodicean, and it has not been finished. Its completion would cost a considerable sum, but the committee's view is that, as a matter of national insurance, we ought to be in a position to manufacture nitrates artificially in this country, since, from the military aspect, we cannot afford the risk of being dependent on saltpeter imported from Chile for the nitrogen compounds which are indispensable for modern high explosives. Perhaps the best solution would be for private enterprise to take over and equip the factory, with some measure of government control and interest; and the appearance a few weeks ago of an advertisement inviting offers for it suggests that this is the direction in which events are moving. It is believed, indeed, that an important group of firms is in negotiation for the place. In this connection it must be remembered that nitrates are as essential in peace, for fertilizing purposes and the manufacture of mining explosives, as they are in war.

A cheap and abundant supply of electric power being essential for the commercial success of some of the processes of fixing atmospheric nitrogen, the committee considered very fully the question whether this condition can be met in the United Kingdom. In particular, they investigated the possible advantages of employing preliminary processes of carbonization and gasification in connection with large electric power stations, instead of firing