

meaning and vastly terrific sound. It must not be allowed to frighten you though. * * * * * A few weeks earnest application for three or four hours a day would give you such an insight into the practical working of those branches of science that concern you, that you would feel yourselves in a position to detect a fraud whenever you met with it." Who would not court science invested with such wondrous power? Mr. Jenner-Fust has evidently acquired his scientific knowledge by "a few weeks' earnest application for three or four hours a day," but it is to be regretted that he has not been "able to detect a fraud" when it has been presented to him.

In the subsequent part of the lecture the audience was informed that "heat is the great opponent of gravity." I am surprised that Mr. Jenner-Fust's scientific knowledge did not show him that such a statement was a *fraud*. Heat acts in opposition to cohesion—a very different thing from gravity. An ounce of ice will produce exactly an ounce of water, gravity acting with equal force upon liquids and solids, although the power of cohesion is less strongly exerted on the particles of water than on the particles of the solid ice.

The lecturer also states as "a law of nature" that "motion always is accompanied by heat." I venture to affirm that such a law of nature is a *fraud*. Motion may be converted into heat. Motion, partially or wholly arrested, may reappear as heat, but to quote from Ganot's admirable treatise on physics, "experiment has shown that there is an exact equivalence between the motion thus destroyed and the heat produced." Mr. Jenner-Fust next informed his audience that the thermometer "measures the relative amount of heat in various bodies." The thermometer reveals nothing whatever concerning the amount of heat in a body. It indicates the *intensity* of the heat of a body, and will, therefore, register the same temperature in any vessel, large or small, containing boiling water. I have called attention to a few of the errors in the lecture in question, because they have a direct bearing on a subject which is now receiving considerable attention—I refer to Agricultural Education. Mr. Jenner-Fust himself, in the *Record* of last month, maintains that in "every school, assisted by Government aid, there should be given at least three weekly simple lessons in the elements of agriculture." The Commission appointed by the Ontario Government in April last to inquire into the condition and progress of agriculture within that province, in their report recently laid before the Ontario Legislature, urges that a course of instruction in agriculture be introduced into the common schools of Canada. I should like to ask if we can expect correct scientific teaching from the grade of teachers in charge of the majority of schools in rural districts, when well-educated men, college graduates like Mr. Jenner-Fust (who is in this particular a type of a large class), have such incorrect opinions on scientific subjects? Better far for one to receive no new ideas than to receive incorrect ones.

As for practical agriculture, the scholars in country districts in most cases know far more than the teacher—frequently a lady. I hope to return to this subject again.

Yours truly,

WYGRAM.