of the legal right to teach in our high schools anything in the course whether he knows it or not.

The way out of this seems easy. Put all university graduates on an equal footing as regards examination subjects. Or, if there must be options, then let the subjects in which the candidate has not passed be endorsed on his professional certificate.

Thirdly, and for the present, lastly, to note another injustice—this time to the public. The holder of a senior leaving certificate who has successfully graduated from the Normal College is entitled to teach in the public schools of our country.

It must certainly be clear to everyone that knows the course that the training of such a graduate has been entirely inadequate. The observing of a few lessons in the same are surely not enough. There is too little practical work in public school subjects, there is no course of instruction in public school methods, there is no final test of knowledge of public school teaching.

Here again the cure is simple. Let there be appointed on the staff of the College a lecturer in public school methods, who will be the qualified director of a course of study of this work, and let there be more public school teaching with a salutary criticism thereof.

W. M. LOGAN.

Energy in Physics and Education.

In reading about physical energy the other day I was prompted to enquire whether any analogy or parallelism existed between the various forms of mechanical energy and those of educational energy.

Eight varieties of energy were enumerated as being present in the universe, and I have traced out some fancied resemblances to two or three of them in some of the various departments of work which the teacher is called upon to perform.

The two main types of energy are represented by (1) the working power possessed by a body in actual motion and (2) that possessed by a body which occupies a position of advantage with respect to any force.

These two, the energy of actual motion and the energy of position, are being continually changed into one another. Examples of the first kind are furnished by any body in motion, as the flowing river, the rushing railway train, and the air in motion, whether as zephyr or hurricane. As examples of the second kind may be instanced a stone on a housetop ready to drop, a head of water ready to turn the mill wheel, the clock weights wound up ready to keep the clock in motion, or any similar body occupying a position of advantage with reference to gravity.

Now, to attain this energy of position, or potential energy as it is called, energy of motion must have been expended. Work is required to raise the clock weights, to place the stone on the housetop, or to give their position of advantage to the great heads of water which by their downward momentum are made to do so much useful work in turning our mills or lifting our vessels from lower to higher lake levels.

May we not regard the teacher just ready to enter upon her work as charged with potential energy? What are the elements of kinetic energy which have had to be exchanged for this potentiality? Have we not here the equivalent of all the work of preparation from her earliest school days up to her final examination? The work of her teachers in her behalf, her own hand work and brain work late and early, the sum total also of her hopes, fears and anxieties? All these and more have been factors in placing her in the position of advantage which she now occupies.