

zoology, botany, and physiology, the physical sciences could be shirked altogether. The latter course was, perhaps, rarely pursued, but the former, I imagine, must have been commonly followed. It is gratifying to find that at last natural science is to receive a much overdue recognition in the Cambridge Previous Examination, and, though the exact details are not yet to hand, one fervently hopes that both branches, the physico-chemical and the biological, will be included and made obligatory for all students.

It appeared to me in the past that the Cambridge medical student who took the Tripos along with his M.B. examinations received (in theory, at any rate) the broadest education in science that the University had to offer; for in his first M.B. he was obliged to take both physics and chemistry as well as biology. It thus struck me that some such examination should have been made universal for all honours candidates in natural science. Now that science is to be introduced into the "Little-go," the necessity for such an intermediate examination may be less urgent, though one doubts if the need is entirely removed. A further test to ensure a grounding in, not a mere smattering of, all the principal sciences would seem desirable. Then the actual degree examination could have a more restricted range, and at the same time be of a more advanced character than it is presumably at present. Part II. of this Tripos could then be more circumscribed as to its subject-matter, and might with advantage consist partly of a training in research. Surely, for instance, the whole domain of either physics or chemistry is too vast a field for anyone adequately to explore and master with profit for a single examination.

Little change, I surmise, beyond the abolition of that irritating second subject in Part II., has taken place in the Natural Sciences Tripos since the early 'nineties, when I was closely familiar with it. If a radical reconstruction be not feasible, may I plead for a greater selection of subjects for Part II. by the introduction of border-line ones? By way of illustration, let me refer to one of these—biochemistry. Have not the watertight-compartment system and the lack of breadth in the elementary training arising from the option of subjects acted adversely on the output of biochemical research (at any rate, as applied to plants) by the Cambridge school? For instance, the newly fledged botanist who may desire to research in plant physiology from the chemical side is often hampered at the start from his lack of knowledge of, and want of practice in, organic chemistry. The chemist, on the other hand, through being allowed to ignore biology in his training, may not only feel himself unfitted to tackle biochemical problems, but may even be unmoved by them; and yet from his familiarity with organic chemistry he may be quite competent to attack them from this side. The introduction of a subject in Part II. embracing, say, organic chemistry and the physiology of animals or plants (or both, if not too extensive) would tend to produce men thoroughly equipped to undertake biochemical research. Surely here the harvest is great, but the labourers still are few.

JOHN PARKIN.

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Arthur Eckley Lechmere and Science at Ruhleben.

THE sad news of the premature death on February 14 of Dr. A. E. Lechmere prompts me to write a few words on what this distinguished and promising biologist was to us at Ruhleben. It was the writer's privilege to collaborate with Dr. Lechmere and others in the building up of that little oasis in Ruhleben, the natural science laboratories.

Unique as an institution—science laboratories in
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an internment camp—unique also in their aboriginal primitiveness—the hay-loft, and later the horse-boxes, of the oldest and most ramshackle stable in the camp—they became in course of time quite well equipped, and the scene, not only of steady and systematic teaching and study, but even of research.

The history of the science laboratories at Ruhleben is the history of a development in the face of powerful internal and external opposition, and may be said to have reached its climax on the occasion of the Natural Sciences Exhibition in September, 1918, when the laboratories of Ruhleben were thrown open to the "general public" of the camp and proved themselves the greatest popular attraction that the camp had experienced, receiving in due course the patronage also of the commanding officer and his staff.

Of all those who worked assiduously for the cause of science in Ruhleben, Dr. Lechmere was alike the most distinguished and the most enthusiastic. A keen worker and a true lover of science, he was at the same time a man of extraordinary versatility. He was qualified as an electrical engineer, and at Ruhleben, besides inaugurating and leading the biological department, he devoted considerable time and thought to artistic bookbinding and to the designing and finishing of dresses and decorations for the Ruhleben stage.

During his four years at Ruhleben Dr. Lechmere gave numerous popular lectures to large audiences on biological subjects of general interest, such as evolution, parasitic diseases, inoculation (at the time of the smallpox scare), "Some Monkeys and Man," etc., generally illustrated with lantern-slides, most of which were made by himself at Ruhleben. In the biology laboratory itself he was always at work, and found in the small pond situated in the middle of the playing-field a plentiful reservoir for, in particular, microzoological study.

The writer speaks as a layman on the subject of biology, but he can safely assert that the biology laboratory, with its first-class microtome, its stock of fine microscopes, its excellent electrically regulated thermostats, was an achievement that the camp could be proud of, and Dr. Lechmere himself loved the place and practically lived in it.

As the laboratory accommodation and the facilities grew, the contact between the various branches of natural science became more close, geology, chemistry, and physics all having a large number of students. Thus laboratory work could be found in all branches for students of natural science, and we may say that nothing could have been more harmonious than the co-operation of all the science departments of Ruhleben Camp School.

Space here does not admit of a description of the exhibition; may it suffice to say that one could occupy several hours profitably in passing through and observing the various exhibits and the experiments being carried out; it was noted that its effect was to stimulate energetically the interest of the general public in natural science.

To this achievement of the sciences in Ruhleben Dr. Lechmere contributed the largest share, and contributed it with that extraordinary grace and with that infinite kindness which were his. He was often in bad health. The severe winters in almost unheated barracks told on him. But he stuck to his task under the most trying conditions. To his colleagues and friends at Ruhleben, to the students who profited by his wonderful teaching and lecturing, many of whom are now pursuing their studies at our universities—to all these his untimely death, coming so soon after his return to England, is deeply tragic.

J. W. B.