

MICROSCOPY AND BIOLOGICAL ACTIVITIES AT RUHLEBEN.*

(British Civil Prisoners of War Camp).

Among the unfortunate students in Germany who early in the war lost their liberty and found themselves interned at Ruhleben, was Grant Lochhead, only son of one of this society's esteemed members, Wm. Lochhead, Professor of Biology, of Macdonald College, Que.

Grant Lochhead studied at the University of Leipzig, having just been granted his Ph.D. degree; but he did not succeed in leaving Germany in time when war broke out. Those who know the pleasant, courteous and happy disposition of Grant Lochhead, will be glad to hear how he and other young Britishers succeeded by a dogged determination in overcoming to some extent, the boredom and ennui—to say the least—of a prisoner's camp life.

"... Ruhleben camp is situated on a bleak plateau on the site of the well-known race course to the west of Berlin. This fact will account for the mention of 'betting booth, hay loft and grandstand.'"

"Roughly the camp is made up of students from the Public Schools and Universities. The educational work has been going on there for the past two and a half years. As an introduction to the prospectus of work for the autumn term 1916, we find among other notices the following:—In most subjects the tuition provided at the school, ranges from that required by absolute beginners to that required by advanced university students. The term consists of fourteen weeks; the total subscription of 3.50 marks should be paid in advance, if possible."

From a letter of Dr. A. Eckley Lechmere to R. Paulson, F.R.M.S., dated August 14th, 1917:

"When the laboratory started in the spring of 1915, we were fortunate enough to have several

microscopes at our disposal. These were supplied by people in the camp who had their instruments in Germany. I had been working at plant diseases in Munich with Professor von Tubeuf, and the cytology of sex in insects with Dr. Büchner, so I was fortunate in having both instruments and a certain amount of material at hand which Prof. von Tubeuf kindly sent me here. Since then several more instruments have been obtained by other students. We have now an excellent microscopical outfit for general laboratory work. The instruments include the following items:—

One Leitz binocular, two Leitz C, two Leitz GH, two Winkel, one Seibert, and one Nietsch, one Baker Diagnostic, and a set of eight dissecting lenses, two polariscopes, micrometer eye-pieces, camera lucida and micro-spectroscope, one Leitz Minot microtome.

For sitting accommodation we use a large deep bench, fitted under the windows in the wall of the loft. The windows themselves have been much enlarged, and this year we have had skylights let into the roof. For work in the evenings I have arranged a small transformer to work from the main electric supply, which gives sufficient current to run twenty 4-volt lamps; at the same time it can supply current for heating a small drying-box for the microtome slides, and is further used for an electric needle



DR. GRANT LOCHHEAD
Late a Canadian prisoner at Ruhleben
Camp, Germany.

for orientation of sections in wax.

The general instruction in laboratory work and the preparation of lectures do not leave much time for original work. The only things I have attempted here have been a series of stages in the development of the Orange Scale insect (*Aspidiotus*), and a few preparations of a curious mite infesting the earwig. The body of each mite has a long stalk which forms a branching meshwork gradually covering the body of the host. I have never seen it before, and do not know the genus. During the months of May

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