

5. Electrolytic and Chemical Metallurgy. These are important branches of metallurgy and a separate laboratory should be provided. We have no room for this at present.

6. Metallography. The room now available is insufficient and is needed for other purposes.

7. Large Metallurgical Laboratory. Our space varies from 1/4 to 3/4 of that in the English Universities, and owing to poor location and lighting the space we have is not very effective.

8. Store Rooms. Ample room should be provided for supplies of fuel, ores, metals and other materials and also for housing of furnaces and appliances that are not actually in use. In this way the laboratories can be of moderate dimensions and can be kept more presentable than is possible at present. This store room can be in the basement of a building.

A room in the basement should be provided for dirty operations such as the crushing of ore samples, and the crushing, mixing and briquetting of ores, clay and similar materials.

Differences in the Courses of Instruction.

Metallurgical students in English Universities have far more time for instruction in metallurgical subjects than at McGill; the extra time being mainly in the laboratory. This is possible partly because fewer other subjects are taught and partly because the English students have in many cases received a better grounding before entering College. Thus at the Royal School of Mines the students have in Chemistry 8 lectures and 16 laboratory periods as compared with 10 lectures and 8 laboratory periods at McGill. In fire-assaying they have 2 lectures and 10 laboratory periods as compared with 1 lecture and 2 laboratory periods at McGill. The R.S.M. students have 15 lectures and 21 laboratory periods in Metallurgy as compared with 11 lectures and 5 laboratory periods at McGill. They have on the other hand only 2 instruction periods in Mathematics as compared with 11 lectures and 5 instruction periods at McGill.

In view of these and other differences it is difficult to establish a basis for comparison in regard to our needs for laboratory accommodation and teaching staff. I believe however that as an approximation we may consider that the Metallurgical department