

nation of the warm plate, so that a tendency may be given to the slice to slip downward of itself on to the clean glass, may be advantageously given. We must never attempt to lift the slice. All shifting of its position should be performed with the point of the needle or other sharp instrument. If it goes to pieces we may yet be able to pilot the fragments to their resting-place on the balsam of the new glass, and the resulting slide may be sufficient for the required purpose.

When the slice has been safely conducted to the centre of the glass slip, we put a little Canada balsam over it, and warm it as before. Then taking one of the thin cover-glasses with the forceps, we allow it gradually to rest upon the slice by letting down first one side, and then by degrees the whole. A few gentle circular movements of the cover-glass with the point of the needle or forceps may be needed to insure the total disappearance of air-bubbles. When these do not appear, and when, as before, we find that the balsam has acquired the proper degree of consistence, the slide containing the slice is removed, and placed on the table with a small lead weight above it in the same way as already described. On becoming quite cold and hard the superabundant balsam round the edge of the cover-glass may be scraped off with a knife, and any which still adheres to the glass may be removed with a little spirits of wine. Small labels should be kept ready for affixing to the slides to mark localities and reference numbers. Thus labelled, the slide may be put away for future study and comparison.

The whole process seems perhaps a little tedious. But in reality much of it is so mechanical, that after the mode of manipulation has been learned by a little experience, the rubbing-down may be done while the operator is reading. Thus in the evening, when enjoying a pleasant book after his day in the field, he may at the same time, after some practice, rub down his rock-chips, and thus get over the drudgery of the operation almost unconsciously.

Boxes, with grooved sides or with flat trays for carrying microscopic slides, are sold in different sizes. Such boxes are most convenient for a travelling equipage, as they go into small space, and with the help of a little cotton-wool they hold the glass slides firmly without the risk of breakage. For a final resting-place, a case with shallow trays or drawers in which the slides can lie flat is most convenient.

2. *The Microscope*.—Unless the observer proposes to enter