

has so clearly explained the process, that by a little practice the student will be able to prepare specimens sufficiently thin for every useful purpose. Several lapidaries in London, (see list at the end of this work,) polish and mount vegetable and other fossils, in a very superior manner; but their charges are high, and they frequently injure specimens by grinding them too thin, and thus obliterating structure. I would recommend that a small chip of the specimen, if possible in a *radial* direction, should be examined by reflected light, always beginning with the lowest object-glass and eye-piece, and ascending to the highest power; at first without any preparation;* subsequently the object should be immersed in oil of turpentine, which will render it somewhat transparent, and it then should be examined by transmitted light. By this exploration we may detect structure, and ascertain if the specimen be worth the trouble or expense of farther preparation.

Coal may be prepared for examination, by removing with a sharp knife a thin pellicle, or a minute scraping; immerse it in a drop of oil of turpentine on a piece of glass; then add a little Canada balsam, and hold the glass over the flame of a lamp till the balsam is spread evenly over the

* The drawings in Plate V. figs. 2 and 3, of fossil coniferous wood, were from chips seen by reflected light, and without any preparation.