

which overlie the petrified forest of Portland, no infusoria have been discovered. The Stonesfield slate, and the mountain limestone of Derbyshire, when sliced and polished, exhibit numerous microscopic Polythalamia, and other shells.

INSTRUCTIONS FOR THE MICROSCOPICAL EXAMINATION
OF CHALK, AND OTHER LIMESTONES; FLINT, ETC.

The following method is that recommended by M. Ehrenberg. Place a drop of water upon a plate of thin glass, and put into it as much scraped chalk as will cover the fine point of a knife, spreading it out, and leaving it to rest a few seconds; then withdraw the finest particles which are suspended in the water, together with most of the liquid, and let the remainder become perfectly dry. Cover this dried spot of chalk with Canada balsam (the turpentine of *Abies balsamea*), and hold the plate of glass over the flame of a lamp, until the balsam becomes slightly fluid, without froth or air-bubbles; it should be maintained in this position (the glass being kept as hot as the finger will bear) for a few minutes, until the balsam is found to have thoroughly permeated the substance to be examined. It is preferable to place a piece of very thin glass upon the balsam, and gently press it down, and allow it to remain. (Glass for this purpose may be obtained of Mr. Drake,