

size of that luminary in the ratio of the lesser distance at which it is found behind the lens. On the other hand, if we now return to our experiment, and bring the object gradually nearer and nearer to the lens, it will be seen that the image recedes from it on the other side, and that it becomes larger and larger as the distance increases. In the case of the Microscope, a small object is brought very near to the lens—within a fraction of an inch—and its image is formed at a comparatively great distance, and is therefore proportionately enlarged in dimensions. Having thus obtained these two images—the first much less than the object, and the second much greater—they are then treated in exactly the same manner in both the Telescope and Microscope, namely, examined by a magnifying lens or eye glass.

The impression left on the mind of the Christian philosopher by viewing the works of creation through the one or other of these instruments are so beautifully contrasted by Dr. Chalmers in the following passage, that I am sure you will pardon my taking this opportunity of bringing it under your notice. "The one," says that eminent divine, "led me to see a system in every star: the other leads me to see a world in every atom. The one taught me, that this mighty globe, with the burden of its people and of its countries, is but a grain of sand in the vast field of immensity. The other teaches me, that every grain of sand may harbour within it the tribes and the families of a busy population. The one told me of the insignificance of the world I tread upon. The other redeems it from all its insignificance; for it tells me that, in the leaves of every forest, and in the flowers of every garden, and in the waters of every rivulet, there are worlds teeming with life, and numberless as are the glories of the firmament. The one has suggested to me that, beyond and above all that is visible to man, there may lie fields of creation which sweep immeasurably along, and carry the impress of the Almighty's hand to the remotest scenes of the universe. The other suggests to me that, within and beyond all that minuteness which the aided eye of man has been able to explore, there may be a region of invisibles; and