

exposed to radium rays become phosphorescent, and of such substances zinc sulphide is one of the best. If a screen of zinc sulphide is exposed to the action of radium rays and examined under the microscope, the field of vision is seen to be flashing with points of light. These flashes are caused by the impact of particles expelled from the radium. The particles themselves are infinitesimally small, and, of course, lie infinitely beyond the bounds of human sight. But they are like so many shells, invisible in their path, yet causing sudden and visible disturbance where they strike. On account of their extreme minuteness, human imagination is utterly unable to picture them, and has to take refuge in the mathematical statement that each is, conjecturally, the one-thousandth part of an atom of hydrogen in size. Although the mass discharged is so minute that no change in the weight of the radium could be detected in thousands of years, yet, owing to the high velocity of the particles, their energy is sufficiently great to be measured in fifteen seconds and, as M. Curie has recently shown, to maintain the radium permanently at a temperature of two degrees above its surroundings. The significance of Sir William Crookes's experiment with the microscope lies in this, that it enables us to verify by actual vision a theory that extends our notion of the constitution of matter beyond the atom to its minute constituents, and, by so extending it, opens up a new region of *sub-atomic* research.

An event which has recently taken place—the resignation of Dr. Johnson and of Dr. Murray—changes the aspect of the Faculty of Arts in a way that emphasizes a depressing experience of academic life very strongly. We may be allowed to quote, in part, the notice we wrote for the McGill Outlook:—

The retirement of Dr. Clark Murray from professional life is an event that deeply touches those—and they are many—who have been affected by the influence of a personality that might be termed rare. An idealist by instinct, Dr. Murray has been endowed with a constitution of mind that has enabled him to make his life a uniform exponent of virtues which vanish in theoretical idealists the moment they find themselves tempted by sordid interests or by promptings of passion. Hence the secret of Dr. Murray's power and success. His students have felt that the high principles he inculcated were guiding his life from day to day. It is known by all who are in a position to know, that, owing to that feeling, Dr. Murray has, for more than a genera-