

METEOROLOGICAL PHENOMENA.

I.—WINDS.

Lecture delivered before the Scientific Society by J. T. Warnock, '01.



IN the contemplation of nature we find that there is perhaps no part of it which gives such pleasure and is at the same time so beneficial to man as the study of physical phenomena, for these not only show what is truly grand and majestic in the world about us but lead us even to think of worlds other than our own.

The vastness of this subject however makes it impossible for us to treat of it fully in a brief paper such as the present, and hence we confine ourselves to a consideration of that portion of it which concerns the phenomena of the atmosphere or in other words to the meteorological phenomena.

As regards the history of the study of these phenomena very little need be said. The ancients had a very strange belief about these things; they ascribed them to causes which they held were far beyond the intellect of man and contented themselves with connecting their origin with something Mythological or imaginary. Nor were these notions easily dispelled for it was not until the eighteenth century that scientists gave us anything certain about the matter; since that time however, we have made great progress in this study and can now explain in a comparatively easy manner even those phenomena which formerly seemed most incomprehensible.

THE ATMOSPHERE.

The third grand division of the globe is the atmosphere, a vast ocean which envelops land and sea, and which revolving around with the earth itself partakes of its general motions. It is an invisible elastic fluid composed of oxygen and nitrogen in the ratio by volume of nearly twenty-one of the former to seventy-nine of the latter, and though only a mechanical mixture, yet throughout all parts we find that these two substances are very intimately mixed and always in the air in that proportion. The properties of the atmosphere are not in any way dissimilar to those of other fluids, for it has a certain density of its own, though, on account of its elasticity, this is subject to change; and it is likewise capable