due north; and in the southern hemisphere, due south; while the velocity would, in each case, gradually diminish from the poles towards the equator; where there would be a perpetual calm.

But the earth is in a constant state of motion upon its axis from west to east; by which motion, the currents are deflected from their northern and southern course towards the east. This eastern deflection constitutes the other primary element of the winds, to be next considered.

The general reader will bear in mind; that on the surface of a globe, revolving like the earth on its axis, the motion of any given point at the equator, is the *greatest*, and at the poles, the *least* possible. Thus while the poles are quiescent, the velocity of any given place at the equator of our earth, is about 1000 miles an hour; from which extreme, the velocity gradually diminishes toward the poles. This motion of the earth on its axis, operates in the production of an easterly current in the atmosphere, as follows. Supposing there were no atmospheric currents from the north and south towards the equator, and that the earth revolved upon its axis as at present; one of two things must happen. Either the earth during its revolution would carry with it the incumbent atmosphere; in which case there would be a perpetual calm over its surface: or the earth would revolve within the atmo-