

the tube, however, to be carried along uniformly in any direction by a movement unperceived by himself, the hinder part of it would advance to meet the falling drop ; which would, if the movement in advance were sufficiently rapid, cause it to strike against it ; or if not, to emerge at the lower end so far behind the centre as that movement had carried the tube during the time of its passage from end to end. And this deviation would obviously bear the same proportion to the length of the tube that the velocity of the falling drop bore to that of the tube's advance. Judging, then, from this indication alone, if unaware of his own motion ; he would conclude the fall of the drop to be inclined backward from the perpendicular by a certain angle—but if, suspecting it, he should reverse his movement, and travel with equal speed the contrary way, he would find an equal deviation in the contrary direction, and would thus arrive at the *certainty* that it was to the motion of himself and the tube, and not to any real obliquity in the fall of the drop, that this apparent deviation was owing. And by measuring its angular amount (which would be easy by the help of the marks left by two drops in the opposite circumstances on a screen at the lower end of the tube, and comparing it with the length of the latter), this angle, which might be called the *Aberration* (from perpendicularity) of the *apparent* line of fall, would inform him of the proportion his own velocity bore to that of the drop in its passage, and, the former being known, would enable him to estimate the latter.

(12.) All this is a paraphrase of the astronomical phæ-