

Professor Darwin, in one of his memoirs already cited (*ante*, p. 46), has suggested a possible determining cause of the larger features of the earth's surface. Assuming for his theory a certain degree of viscosity in the earth, he points out that, under the combined influence of rotation and the moon's attraction, the polar regions tend to outstrip the equator, and to acquire a consequent slow motion from west to east relatively to the equator. The amount of distortion produced by this screwing motion he finds to have been so slow, that 45,000,000 years ago, a point in lat. 30° would have been $4\frac{3}{4}'$, and a point in lat. 60° $14\frac{1}{4}'$ further west, with reference to the equator, than they are at present. This slight transference shows us, he remarks, that the amount of distortion of the surface strata from this cause must be exceedingly minute. But it is conceivable that, in earlier conditions of the planet, this screwing action of the earth may have had some influence in determining the surface features of the planet. In a body not perfectly homogeneous it might originate wrinkles at the surface running perpendicular to the direction of greatest pressure. "In the case of the earth, the wrinkles would run north and south at the equator, and would bear away to the eastward in northerly and southerly latitudes, so that at the north pole the trend would be northeast, and at the south pole northwest. Also the intensity of the wrinkling force varies as the square of the cosine of the latitude, and is thus greatest at the equator and zero at the poles. Any wrinkle, when once formed, would have a tendency to turn slightly, so as to become more nearly east and west than it was when first made."

According to the theory, the highest elevations of the earth's surface should be equatorial, and should have a gen-