the object, although he might make an infinitely near approach to it.

Another proposition may be new to some, and worthy of being named. It is this: two lines may approach nearer and nearer forever without meeting, — the asymptote to the hyperbole, for example. This, too, is very easily conceived, though likely to produce scepticism when first announced.

A third proposition asserts that one infinitesimal may be infinitely smaller than another. Here the mathematician starts with something infinitely small, — for that is the meaning of an infinitesimal, — and he asserts that another thing may be infinitely smaller. And this he demonstrates. How stupid must that intellect be which is not roused and interested by such paradoxes!

The science of moving forces, or mechanics, abounds with principles and demonstrations that are novel and striking to the beginner. But for the reasons mentioned in speaking of mathematics, they cannot be now exhibited. Perhaps the following proposition may at least be amusing, although it can hardly be regarded as true, except theoretically. Any force, however small, can put in motion a body however large, and by a sufficient number of repetitions, give it a velocity infinitely great. When, for instance, a man stamps with his foot, he moves the earth; and could he prevent the reaction of gravity, and were to continue to stamp long enough, he would not only put the earth in motion, but give it a velocity greater than it now has in its orbit. But the *που στω*, the place to stand on, which Archimedes demanded, can never be obtained; and therefore this experiment can never be tried.

The mechanical properties of fluids, and especially of the atmosphere, are some of them of a remarkable character. Light and yielding as we regard the air, what but experiment