from its predecessor by an interval or angular distance equal to one half the circumference of the stem. We have here, then, a spiral expressed by the fraction $\frac{1}{2}$. The complete series of fractions, therefore, is the following: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{2}{5}$, $\frac{3}{8}$, $\frac{5}{13}$, $\frac{8}{21}$, etc. Now let it be borne in mind that these values are obtained by actual observation, and that there are plants whose leaf-arrangements are known to correspond to each of these fractions severally, as well as others in the series farther continued. But notice the relation which subsists between the successive fractions in the series. Each numerator is equal to the sum of the two preceding numerators, and each denominator to the sum of the two preceding denominators. Knowing this law, we may continue the series to any extent; and it has been so continued, and fractions obtained to which plants have subsequently been found to correspond, though we hardly know how at present to interpret the unrealized possibilities indicated by the higher terms of the series. Is all this the result of chance? Is it not rather mathematics, law, intelligence?

We turn now our attention to the "infinite meadows of heaven," where

> "Blossom the lovely stars, the forget-me-nots of the angels."

Neptune, the remotest planet, revolves about the sun in 60,000 days—speaking in round numbers—Uranus, the next, in 30,000 days, which is *one half* the preceding number; Saturn, the next, in 10,000 days, which is *one third* the period of Uranus; Jupiter revolves in 4000 days, which is *two fifths* of the period of Saturn. And so we go on through the system, and find the law expressing the relations of the revolutions of the planets identical with that which determines the arrangement of the leaves upon the humble stem of a plant.