the distance from the Sun, when nearest, would be only sixty-one millions of miles; and in six months after, the distance would be doubled, that is, one hundred and twenty-two millions of miles. Under these circumstances, the Sun, when nearest, would appear four times larger than at its aphelion distance.

You see, then, how easy the Lord, by deviating the angle of projection, could cause a great difference, in the eccentricity of an elliptic orbit, without altering the mean distance or without shortening or lengthening the year. The year would remain the same, without any deviation in its length, if the earth revolved in an ellipse of the kind that I have just named. Again, if you wanted the earth to go so near the Sun that it would almost graze its edge, and still retain the length of our year unchanged, it would not take our advanced university students long to determine the angle of projection the earth should have, so as to just graze the edge of the Sun, at the perihelion distance, and come back again in an ellipse, which would be almost equivalent to a straight line, provided it was projected at the mean distance that we now have, with its present mean velocity; and the year would be exactly the same as now. I mention these things to show you how the Lord, by a little deviation, can design a great variety of orbits, in which worlds may revolve, according to law; for all these things are done according to law; and if actually projected, as we would propel a cannon ball, then all the Lord has to do is to decree the form of the elliptical orbit, having one year for its description, and the projecting angle will be, at once, known.

This is a law, and the Lord is the Author of it. It is not a law of nature. It is not a law of blind materials which have no knowledge or life connected with them, or in them or round about them.

I have been speaking of bodies projected at different angles, and at the mean distance of our earth from the sun. But let us next go still further off into space. We can go away to the orbit of Jupiter, about four times our distance from the sun. Is there any law for projection or a law of velocity that would cause bodies to revolve in orbits, at four times our distance from the sun? Yes. What is the law? It must not have the same velocity that we have. It must, at four times that distance, have only one one-half of the mean orbital velocity of our earth; and, if you gave it more than one-half of such velocity, it would decrease the mean distance of the orbit below four; if you gave it less, it would increase that mean distance above four; but if you gave it exactly one-half of the velocity our earth has, then it would preserve its orbit in a circle, or in any kind of an ellipse at that mean distance. Is there any law to govern this velocity depending upon the distance from the sun? Yes. What is the law? According to mathematical expressions, "the velocity varies inversely as the square root of the distance." Well, says one, that is no information to us. We don't know what you mean by *inversely* and don't know what you mean by *the square root*; for all of us have not sufficiently studied arithmetic so as to understand the roots and powers of numbers. In reply, I will say, it is something very simple to all advanced students of arithmetic. Let me say a few more words, in regard to this law; for this is also a law of God. For instance, we will say, that the earth travels a certain distance in one