CHAPTER-4

ARISTOTLE'S AND GALILEO'S OBSERVATION ON FALLING BODIES?

Highlights about the chapter (ARISTOTLE'S AND GALILEO'S OBSERVATION ON FALLING BODIES?) in MATERIALISTIC UNIVERSE by Ramesh Varma.

Note: Chapter over ARISTOTLE'S AND GALILEO'S OBSERVATION ON FALLING BODIES? Is not an encyclopedia. Challenger has illustrated only which relates to the new or contrary findings/understandings with some existing references to make the subject understandable.

- Aristotle's and Galileo's observation on falling bodies is an important observation for understanding true working mechanism of solar/planetary system.

- There is no place in the Universe where absolute-nothing exists. Medium poses resistance to falling bodies and medium besides gas or liquid for celestial-bodies is white-matter (light/rays' particles).

- Small bodies have great surface area than their mass as compared with big body of the same material thus smaller bodies face greater resistance (uplift or thrust) than the big bodies.

- Because of the said thrust-force Moon faces more thrust magnitude by the Sun-rays than the thrust magnitude by the rays over the Earth. The same effect is over the planet Mercury as compared with the Earth and Venus thus mean densities calculated of the celestial bodies are wrong.

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Note: This observation seems to have no importance but this observation is one the some other observations which have been accepted blindly resulting to lead the World knowledge towards false/wrong direction over the subject Astronomy and light/rays. Giving no importance to similar observations is like as no one has ever given or gives importance to the brand and quality of the table-salt (a basic health factor); similarly no one has given the important to give a second thought over the said observation and some other basics (false) of the subject 'Astronomy and Physics (light/rays) whether these are correct which have been accepted blindly as true.

Aristotle: Unequal weights fall to earth with different velocities and heavier weight would fall faster to the ground.

Galileo: Proved by experiment that two balls of steel fall with the same velocity irrespective of their size (weight).

Author: Which observation or the practical is correct?

Author while performing Research and Development (R & D) during the year 1978 to manufacture micro-glass spheres observed that small glass spheres are falling to ground with slower speed than the large ones.

Whereas when Galileo performed the practical with the two steel balls of weights 1 pound and 10 pounds, the two balls dropped simultaneously from a tower touched the ground at the same time, which baffled the scientists.

Galileo (1564-1642) did not know about the gravity, because he died before the gravity was observed by Newton (1643-1727).

Author has observed that proper watches were not invented during sixteenth century, then the question to have precise watch does not arise when Galileo performed the practical. Due to heavy weights, observers could not visualize the difference, because fall was not too high and the time difference between the two balls touching the ground too was very less. Heavy ball must have touched the ground earlier than the smaller. So the result noticed thus declared that both the balls touched the ground at the same time was wrong.

Author has observed that under ***any medium*** no two objects of the different densities or sizes could fall with the same speed. If we ignore the medium resistance (upward lift) and only consider the gravity force factor, the two objects irrespective of their sizes and gravity would be attracted towards the Earth with the same velocity. In practical, medium cannot be ignored. Over the earth medium can be air or gas or any liquid, but in space medium is the white-matter-particles. It is the World's ignorance that the World has considered space as medium-less.

EXPLANATION:

- **PRACTICAL:** Take eleven balls of weight one kilogram each of any material (e.g. fine clay). Measure its surface area. Now keep one ball of one kilogram at a side and re-mould ten balls to one ball of weight ten kilograms. Measure the surface area of this ten-kilogram ball. Divide this surface area by the unit ten. You will find less surface area to per unit weight of the ten kilogram ball as compared with the ball of weight one kilogram. So the upward lift of medium (white-matter, gas, liquid) would be more to the small ball as compared to the large ball. So the speed of small ball would be lesser than the large one.

- **THEORETICALLY:** Theoretically has been calculated under the relevant chapters.

CONCLUSION:

Smaller celestial bodies in space would face greater magnitude of thrust/resistance by the rays (white-matter) than the large bodies, where as gravity factor would be as per their masses.