

FIFTH MEETING.

Fifth Meeting, 3rd December, 1892, the President in the chair.

Donations and Exchanges, 154; also to the Biological Section, 107 bird-skins, by Dr. Walker, of Orillia.

Miss Sarah A. Flood and Mr. C. H. Keefer, C.E., were elected members.

The Secretary, for Professor Campbell, of Montreal, read a paper on "A New Reading of the Buddhist Inscriptions of India."

Mr. Andrew Elvins read a paper on "The Planet Jupiter and his Satellites." He stated that the discovery of a fifth satellite to Jupiter has caused astronomers to turn their attention to the giant planet of our system, and many who have not made astronomy a special study are more interested in Jupiter's system than they have usually been in the past. Four moons have been known since Galileo's time, and they have been so easily seen that no one has appeared to suspect that any other existed—at least until about two years ago. When we speak, now, however, of the moons of Jupiter we know there are five, and we suspect there may be more. Their distances from the planet's centre, expressed in radii of the planet, are as follows:—

RADI.	MILES.
V. $2\frac{1}{2}$	11,000
1. 6	267,000
2. 9	423,000
3. 15	678,000
4. 24	1,192,000

It will be observed that by adding the distance of the inner satellite to the next in order, we get the distance of the next, and so on throughout the series. He thought this could not be a matter of chance, but he was not able to point out the cause. The rates of the satellites in their orbits have also a peculiar feature, the most distant one, the IV., moves but half as fast as the one next inside itself, and so on throughout the series. The velocity of No. IV. is one mile per second.

No.	MILES.
III.....	2
II.....	4
I.....	8
V.....	16

He left these facts with his hearers and requested them to seek the cause. In relation to the shape of the satellites he thought that the strong tidal action of the mighty planet would be so great that they