

previous night when the two planets were both in the finder of a telescope.

During the month he had lectured at St. Luke's, and received a most cordial reception.

Mr. Smith also illustrated by diagrams the present position of Mars, drawing certain markings at the pole and near the equator of that planet, that he had been able to see in his $8\frac{1}{4}$ inch reflector at this opposition.

The following paper on "The Zodiacal Light" was read from Councillor H. B. Small, of Ottawa :

The pale glow of golden light lingering after sunset in March, and heralding the sunrise as co-partner with the dawn in summer and autumn, has long troubled Astronomers to explain, and the question : "What is the zodiacal light?" still remains unsatisfactorily answered. In our latitude it can only be seen either before daybreak or after sunset, the thickness of the atmosphere obscuring it at other seasons. Near the equator, however, where the ecliptic rises high above the horizon, it is visible nearly equally as well all through the year.

Shaped like a cone, it reaches upwards some forty degrees from the horizon ; a soft, faint column of light, more nearly resembling a sunlit, cloud-like haze, of such tenuity that stars are easily discernible through it. Last March it was peculiarly brilliant, and the most favorable season for its observation is usually from the beginning to the end of March each year. In the tropics, where the atmosphere is unusually clear, it has been traced right across the sky, from east to west, forming a perfect arch, and the query has been raised : Does it extend as a ring round the whole globe?

Various are the theories advanced to account for its presence, but probably the child who gazes on it with admiration, knows as much about it in reality (not in theory) as the most learned scientist who discusses its constituents, and writes long treatises on its probable origin. It has been considered to be a ring, like those around the planet Saturn, revolving around the Earth ; it has been thought to be a collection of minute particles of meteoric or cometic matter, travelling round the sun in a very eccentric orbit ; whilst another theory is that it is a continuation of the sun's corona, indicating a lenticular shaped atmosphere of inconceivable rarity, surrounding the sun and extending out near the plane of the ecliptic beyond the orbit of the earth. Another theory is that the whole space between the earth and sun is filled with an immense cloud of meteoroids, and that the sunlight reflected on these cosmical atoms of star dust is the cause of the soft, luminous glow which lingers in the western sky long after sunset. This theory is to my mind the most acceptable and probable, and is borne out in analogy by the red and glowing skies after sunset, apparent in 1883 ; presumably traceable to the vast clouds of almost impalpable dust that reached the upper stratum of our atmosphere from (or believed to be from) volcanic forces in the great Java cataclasm of that year, and which dust reflected back the sunlight to the earth long after that luminary had sunk below the horizon.

Cosmic dust is perpetually falling or being precipitated to the earth, but in such imperceptible quantities, that it is only an accumulation of centuries that attests its reality. In the "Challenger" expedition, meteoric dust (or iron dust) was found at the sea bottom in its deepest