

of her curious carriage. It was the explosion of this that had demoralized our boat.

Before the projectile was launched the multitude was addressed by the Primess of Cinquus, who was the most learned scientist of all the erudite Cinquennes. Indeed, for her supreme knowledge had she been chosen chief ruler, predominance in learning being the one qualification for that honor.

She exhorted—translated into Terrestrial tongue—her fellows to remember how the volcano had cast up two Cinquian satellites in our year 1877; and she warned the courageous lady who would be carried off that her conveyance might also become a satellite. A projectile shot upward with a force insufficient to enable it to penetrate the entire Cinquian atmosphere, or exhausted on getting there, would of course return. If its momentum were much greater than enough to give it a circular orbit at the upper-air limit—or if its angle of projection very greatly exceeded a right angle—it would continue on and find for itself a too-eccentric or comet-like orbit. Were the projectile force at the air-limit to be just double or twice the square of the force required to retain the body in a circular orbit there, it would fly off in a parabola. A greater force of projection still and the trajectory of the body would take the form of the hyperbolic curve; so a good many things had to be taken into account. She was sure however, for mathematics cannot err, that the momentum would be sufficient, and the time chosen right, to accomplish the desired end.

When once the lady had arrived on Quatus she could devise means for coming back, perhaps. Nevertheless, they should bid her a solemn farewell. And they did so.

At a favorable opportunity the aerolite, freighted as has been shown, was fired from a big gun and dropped into the

erupting volcano. The crater vomited it forth, and proved the lady's theory correct by landing the projectile on Quatus ten days and ten hours later.

Aerene said that the projectile moon revolving nearest to Mars, which we call Phobos (terror,) was 5,000 miles only from its primary, and completed its orbit in seven hours and 39 minutes. The period of the outer satellite, Deismos (fear,) as Terrestrials know it, is 30 hours and eighteen minutes, and its distance from Mars is about 14,600 miles. Both moons are between ten and twenty miles in diameter.

Mars receives barely one-half the sunlight bestowed upon our earth, and a Terrestrial hundred-weight would on the ruddy planet weigh merely 38 pounds. The mean distance of Mars from the sun Aerene calculated as being 141,500,000 miles, as we do. Mars' sidereal period is 687 of our days, and his synodic time is 780 days. He rotates on his axis in twenty-four hours 37 minutes and 22 67 seconds, having an equatorial diameter of 4,200 miles. The inclination of his equator to the plane of his orbit is 24 degrees and 50 minutes, about the same as that of the earth.

The women of Mars, Aerene told us, had discovered long ago a planet nearer to the sun than Mercury. The Sun they called Alphomegas. Our planet names are, beginning next the Sun:—Vulcan (suspected,) Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune. The Cinquian people called them, in the same order: Unus, Deus, Troius, Quatus, Cinquus, Sextus, Septus, Octus, Neufus, Dixus,—which later we of earth have not discovered.

Jack Davis says the proper name for inhabitants of Mars is Marticoli.

To finish, Jack married Aerene; she did not go back to Mars.

The aerolite is still in the Caspian sea.

TORONTO, CANADA.