

obscuration of the sun by a thunderstorm.<sup>6</sup> The Aitareya Brāhmaṇa<sup>7</sup> presents a naive conception of the course of the sun, which it regards as bright on one side only, and as returning from west to east by the same road, but with the reverse side turned towards the earth, thus at night illumining the stars in heaven.<sup>8</sup> In the Rigveda<sup>9</sup> wonder is expressed that the sun does not fall.

There are several references to eclipses in the Rigveda. In one passage<sup>10</sup> Svarbhānu, a demon, is said to have eclipsed the sun with darkness, while Atri restores the light of the sun, a similar feat being elsewhere attributed to his family, the Atris.<sup>11</sup> In the Atharvaveda<sup>12</sup> Rāhu appears for the first time in connexion with the sun. Indra's defeat of Sūrya<sup>6</sup> may also be explained as alluding to an eclipse; in two other passages<sup>13</sup> such an interpretation seems at least probable. Ludwig<sup>14</sup> not only argues that the Rigveda knows the theory of eclipses caused by an occultation of the sun by the moon, and regards the sun as going round the earth,<sup>15</sup> but even endeavours to identify an eclipse referred to in the Rigveda with one that occurred in 1029 B.C. These views are completely refuted by Whitney.<sup>16</sup>

The sun as a maker of time<sup>17</sup> determines the year of 360 days, which is the civil year and the usual year (Samvatsara) of

<sup>6</sup> Macdonell, *loc. cit.*

<sup>7</sup> iii. 44, 4.

<sup>8</sup> Macdonell, p. 10, who compares Rv. i. 115, 5; x. 37, 3. See also Speyer, *Journal of the Royal Asiatic Society*, 1906, 723; Thibaut, *Astronomie, Astrologie und Mathematik*, 6.

<sup>9</sup> Rv. iv. 13, 5.

<sup>10</sup> Rv. v. 40, 5-9. Cf. Macdonell, p. 100; Pañcaviṃśa Brāhmaṇa, iv. 5, 2; 6, 14; Kauṣītaki Brāhmaṇa, xxiv. 3; Tilak, *Orion*, 159.

<sup>11</sup> Av. xiii. 2, 4, 12, 36; Śatapatha Brāhmaṇa, iv. 3, 4, 21.

<sup>12</sup> Av. xix. 9, 10; Zimmer, *Altindisches Leben*, 351.

<sup>13</sup> Rv. iv. 28, 2, 3; v. 33, 4. In X:27 20, *sūro markah* means, according to Roth, *St. Petersburg Dictionary*, s.v.,

and Zimmer, *loc. cit.*, a demon of eclipse; but it may also mean the 'cleansing' sun. Av. ii. 10, 8, clearly refers to an eclipse. See Lanman, *Festgruss an Roth*, 187-190.

<sup>14</sup> Proceedings of the Bohemian Academy of Sciences, May, 1885; Translation of the Rigveda, 6, 1.

<sup>15</sup> See Rv. iv. 28, 23; v. 33, 4; x. 37, 3 & 138, 4.

<sup>16</sup> Proceedings of the American Oriental Society, October, 1885, xvii (*Journal of the American Oriental Society*, 13, lxi-lxvi); *Journal of the American Oriental Society*, 16, lxxxii, lxxxiii; Eggeling, *Sacred Books of the East*, 41, 65, 66; Thibaut, *Astronomie, Astrologie und Mathematik*, 6.

<sup>17</sup> Rv. v. 81, 1.