

The companion, about 3' away, described "as if steeped in indigo," was discovered by Winlock to be itself closely double, 3".3 apart, at a position angle of 88°.5.

β, 2.3, blue.

**Denebola** — sometimes **Deneb** — is the modern name for this star, abbreviated from **Al Dhanab al Asad**, the Lion's Tail, the Greek *Ἀλκαία*; Bayer gave it as **Denebalecid** and **Denebaleced**; Chilmead, as **Deneb Alased**; and Schickard, as **Dhanbol-asadi**. Riccioli omitted the first syllable of the original, and called the star **Nebollesed**, **Nebollassid** "of the Nubian astrologers," and **Alazet** *apud Azophi*, his title for Al Sufi. Elsewhere it is **Nebulasit** and **Alesit**; the *Alfonsine Tables* have **Denebalezeth** and the very appropriate **Dafra**, from the similar Arabic term for the tuft of coarse hair at the end of the tail in which the star lies. Proctor called it **Deneb Aleet**, and there may be other degenerated forms of the original. Kazwini cited **Al Aḳṭāb al Asad**, the Viscera of the Lion, or **Al Katab**, a Small Saddle: inappropriate names, Ideler said, and inferred that they should be **Al Kalb**, which in the course of time might have wandered here from Regulus, the genuine Kalb, or Heart, of the Lion.

It marked the 10th *manzil*, **Al Sarfah**, the Changer, *i. e.* of the weather, given by Ulug Beg as the star's individual title; and Al Birūnī wrote of it: "The heat turns away when it rises, and the cold turns away when it disappears." Chilmead cited **Asumpha**, which he attributed to Alfraganus; Baily called this **Serpha**; and Hyde changed it to **Mutatrix**.

With the 4th-magnitude Fl. 93, it constituted the 10th *nakshatra*, **Uttara Phalgunī**, and was the junction star with the adjacent Hasta; the regents of this and the next asterism, the Pūrva Phalgunī, being the Adityas, Āryaman and Bagha. Al Birūnī, however, said that Hindu astronomers pointed out to him a star in Coma Berenices as forming the lunar station with Denebola; and they claimed that the great scientific attainments of Varāha Mihira were due to his birthday having coincided with the entrance of the moon into Uttara Phalgunī.

The Chinese knew it, with four small neighboring stars, as **Woo Ti Tso**, the Seat of the Five Emperors, surrounded by twelve other groups, variously named after officers and nobles of the empire.

In Babylonian astronomy it marked the 17th ecliptic constellation, **Zibbat A.**, the Tail of the Lion, although Epping gives this with considerable doubt as to its correctness. Other Euphratean titles are said to have been **Lamash**, the Colossus; **Sa**, Blue, the Assyrian **Samu**; and **Mikid-isati**, the

Burning of Fire, which may be a reference to the hot season of the year when the sun is near it.

The Sogdians and Khorasmians had a similar conception of it, as shown in their titles **Widhu** and **Widhayu**, the Burning One; but the Persians called it **Avdem**, the One in the Tail. Hewitt writes of it as, in India, the **Star of the Goddess Bahu**, the Creating Mother.

With  $\theta$ , it was the Coptic **Asphulia**, perhaps the Tail; but Kircher had a similar **Ἀσπολία**, in Virgo, as from Coptic Egypt.

Denebola was of unlucky influence in astrology, portending misfortune and disgrace, and thus opposed to Regulus in character as in position in the figure.

Its spectrum is Sirian, and it is approaching our system at the rate of about twelve miles a second. It comes to the meridian on the 3d of May, and, with Arcturus and Spica, forms a large equilateral triangle, as also another similar with Arcturus and Cor Caroli, these, united at their bases, constituting the celebrated **Diamond of Virgo**.

Several small stars, some telescopic, in its immediate vicinity, are the **Companions of Denebola**.

$\gamma$ , Double and perhaps binary, 2.2 and 3.5, bright orange and greenish yellow.

Smyth wrote of this that it

has been improperly called *Algieba*, from *Al jeb-bah*, the forehead; for no representation of the Lion, which I have examined, will justify that position,—

a well-founded criticism, although as, after Regulus, it is the brightest member of the *manzil* Al Jabbar, it may have taken the latter's title. The star, however, is on the Lion's mane, the Latin word for which, **Juba**, distinctly appeared for  $\gamma$  with Bayer, Riccioli, and Flamsteed. Hence it is not at all unlikely that **Algieba**,—also written **Algeiba**,—is from the Latin, Arabicized either by error in transcription or by design.

Sir William Herschel discovered its duplicity in 1782, and Kitchiner asserted that this and  $\alpha$  Lyrae are the only stars upon which he ventured to use his high telescopic power of 6450. In 1784 he saw both components of  $\gamma$  white, and in 1803 he announced their binary (?) character. They now are 3".7 apart, at a position angle of  $114^\circ$ ; and according to Doberck have a period of revolution of about 402.62 years, although this is very uncertain, for "since the first reliable measures of distance the change to this time is only  $12^\circ$ ."