

perhaps the diminutive of *rutilus*, "golden red," or "glittering," an adjective applied to Arcturus; but this term is by no means appropriate for  $\beta$ . The *Arabo-Latin Almagest* of 1515 reads *rutillico*, adding *propinque cillitico*, this last unintelligible unless explained by the Basel edition of 1551 as *pene axillam seu scapulam*; so that we may perhaps consider the alternative title to be from the barbarism used to show the star's position on the shoulder of the figure. Indeed, Bayer said of it, *Rutilicum barbari dicunt*. Ideler, however, asserted his belief that it was from *rutellum*, the diminutive of *rutrum*, a sharp instrument of husbandry or war, in Roman times, that Hercules in some early representations, especially on the Arabic globes, is carrying. The *Century Cyclopaedia* gives **Rutilico** as a rarely used name.

$\beta$  was the Chinese **Ho Chung**, In the River, while the 4th-magnitude  $\gamma$  was **Ho Keen**, Between the River.

Its spectrum is like that of the sun, and the star is approaching our system at the rate of about 22 miles a second.

$\zeta$ , 3.1 and 6.5, is a remarkable binary with a period of only  $34\frac{1}{2}$  years, the distance between the stars ranging from  $0''.6$  to  $1''.7$ . According to Belopolsky, it is approaching us at the rate of nearly forty-four miles a second,—the greatest velocity of approach or recession so far ascertained.

$\theta$ , 4.1, with adjacent small stars, was **Tien Ke**, Heaven's Record.

$\chi$ , Double, 4.8 and 7, light yellow and pale garnet.

**Marfak**, **Mirfak**, **Marsia**, **Marfic**, and **Marsic** are all found for this star,—as for  $\lambda$  Ophiuchi; but it properly is **Marfik**, from **Al Marfik**, the Elbow; the titles written with the letter *s* probably coming from early confusion with the letter *f*. The Dorians similarly called it *Kύβιτον*, the Elbow.

In China, with two other stars near by, it was **Tsung Tsing**, an Ancestral Star.

Ptolemy and the Arabian astronomers located it on the right elbow, but Smyth on the left; Heis places it in the right hand, as did Bayer; while Burritt has Marsic in the proper place, but letters it  $\chi$ .

$\lambda$ , 4.8, deep yellow.

**Masym**, **Maasym**, **Maasim**, **Mazym**, **Mazim**, and **Masini** are from the Arabic **Misam**, the Wrist, although Ptolemy as well as most of the stellar map-makers located  $\sigma$  on that part of the figure; but Bayer, probably by an oversight, gave the title to  $\lambda$ , not far from the left shoulder, and hence the mistake which still survives. Burritt applied Masym to this lettered