

δ, 3.5, pale yellow.

This star does not appear to be named, but in China was part of **Tseih Kung**, the Seven Princes; the other components being  $\mu$ ,  $\nu$ ,  $\phi$ ,  $\psi$ ,  $\chi^1$ , and  $\chi^2$ , or  $\delta$ , in the right hand and on the Club,  $20^\circ$  northeast of Arcturus.

ε, Binary, 3 and 6, pale orange and bluish green,

lying  $10^\circ$  northeast of Arcturus, bore these titles in Arabia: **Al Mintakah al 'Awwā**, the Belt of the Shouter; **Izār**, the Girdle; and **Mi'zar**, the Waist-cloth,—all references to its place in the figure. This last word was turned by early European astronomical writers into **Micar**, **Mirar**, **Merer**, **Meirer**, **Mezen**, **Mezer**, **Merak**, and **Mirak**, similar to the title of  $\beta$  Andromedae, and all appropriate. The analogous **Perizoma** was used for it in the *Alfonsine Tables*.

Why it was so favored in nomenclature is not known, for with us it is noticeable only from its exquisite beauty in the telescope, whence it is fast monopolizing the name **Pulcherrima**, given to it by the elder Struve.

The components can be seen with a  $2\frac{1}{4}$ -inch glass, about  $3''$  apart, at a position angle of  $325^\circ$ . The period of their revolution is as yet undetermined, but they are thought to be approaching us at the rate of ten miles a second.

This pair was the chief object of Sir William Herschel's investigations for stellar parallax about 1782, in which, of course, he was unsuccessful, although he did not know the cause of his failure till years thereafter, when he recognized its binary character.

ζ, ξ, ο, and π were **Tso She Ti**, an Officer, in China, on the left hand of the emperor.

η, 2.8, pale yellow.

**Muphrid**, **Mufrid**, and **Mufride**, of the Palermo and other catalogues, is from Ulug Beg's **Al Mufrid al Rāmīh**, the Solitary Star of the Lancer, and inexplicable unless on the supposition that it formerly was regarded as outside of the figure lines. Kazwini called it **Al Rumh**; and Al Tizini, with Al Naṣr al Din, more definitely, **Al Rumh al Rāmīh**, the Lance of the Lance-bearer, although inappropriately, for they designated its position as on Al Sāk, the Shin-bone, and it thus appears as **Saak** in some lists; but as the figure is now drawn η lies above the left knee.

It seems to have been included with Arcturus in the Euphratean **Sib-zi-anna**.

With  $\nu$  and  $\tau$  in the feet, it was **Yew She Ti** in China, the Officer standing on the right hand of the emperor.

$\theta$ , 4.1;  $\iota$ , Triple, 4.4, 4.5, and 8; and  $\kappa$ , Double, 4.5 and 6.6.

Bayer called these **Asellus**,—*primus*, *secundus*, and *tertius* respectively,—although without explanation; but the title is well known for each of the two stars in Cancer flanking Praesaepe. They mark the finger-tips of the upraised left hand just eastward from Alkaid, the last star in the Greater Bear's tail.

In China they were **Tseen Tsang**, the Heavenly Lance.

The members of the larger component of  $\iota$  are 0".8 apart; the smaller is 38" away.

$\kappa$  is pale white, and the two stars are about 12" apart, making it an easy object in a small telescope.

All of these, with the 4th-magnitude  $\lambda$  on the lower part of the left arm, were **Al Aulād al Dhi'bah**, the Whelps of the Hyaenas, shown by  $\beta$ ,  $\gamma$ ,  $\delta$ , and  $\mu$ , and so given on the earliest Arabic maps and globes.

$\mu^1$ , Ternary, 4.2, 8, and 8.5, flushed white, the last two greenish white,

the small companion  $\mu^2$  being a close double.

**Alkalurops** was the Arabian adaptation of *Kālāwrops*, used by Hesychios for the Herdsman's Club, Crook, or Staff, analogous to the *Ρόπαλον* of Hyginus and the **Clava** of the Latins.

**Inkalunis** appears in some of the *Alfonsine Tables*; **Icalurus** in those of 1521, and **Incalurus** in the 1515 *Almagest*, all long supposed to be bungled renderings of Ptolemy's *Κολλορόβος*, itself probably a word of his own coining to designate the position of the star in the club; Riccioli writing it **Colorrhobus**. But Ideler, rejecting this, thought Schickard more correct in deriving these words from *ἐν κολόνῳ*, "in the colume," a statement that was nearly right as to Arcturus 2000 years ago; the name since then having, in some way, been transferred to this star, as also to the constellation. The editor of the 1515 *Almagest* added to his title for  $\mu$  *et est hostile habens canes*, which, Ideler said,—and Homer is for once caught nodding,—"is with reference to the surrounding hyaenas." This most erroneous explanation is corrected by the late Professor C. H. F. Peters of the Hamilton Observatory, whose private copy of this rare edition is now in my possession, in his autographic annotation that the original Arabic should have been rendered *ferrum curvatum* instead of *canes*. Some Latin writers have called this star **Venabulum**, a Hunting-spear.