

scopic binary, completing its revolution in less than three days around the centre of gravity between it and an invisible companion, with a velocity of about $15\frac{1}{2}$ miles a second.

Burnham thinks that the 9.5-magnitude star, $73''$ distant, forms, with the two larger, one vast physical system.

In 1888 Barnard found five new nebulae within 1° of Castor.

β , 1.1, orange,

is **Pollux**, formerly **Polluces**; the Greek Πολυδευκής; Ovid's **Pugil**, the Pugilist of the Two Brothers, and the immortal one as being son of Zeus.

As companion of 'Απόλλων, this was 'Ηρακλῆς and 'Ηρακλής, descending to Flamsteed's day as **Hercules**, and degenerating, in early catalogues, into **Abrachaleus**, that Caesius derived from the Arabic Ab, Father, and the Greek word; this being contracted by some to **Aracaleus**, by Grotius to **Iracleus**, by Hyde to **Heraclius**, and by Riccioli to **Garacles**. All these are queer enough, as are some of Castor's titles; but what shall be said of Riccioli's **Elhakaac**, that he attributes to the Arabs for α and β jointly, and **Ketpholtsuman** for β alone, and with no clue to their origin!

It was the early Arabs' **Al Thānī al Dhirā'**, the Second in the Forearm; but the later termed it **Al Rās al Taum al Mu'ah-hār**, the Head of the Hindmost Twin, and **Al Rās al Jauzā'**, the Head of the Twin,—the Alfonsine **Rasalgense** and **Rasalgeuze**, that elsewhere is **Rasalgauze**. Riccioli cited **Elhenaat**, but this he also more properly gave to γ .

β was the determinant of the 12th Babylonian ecliptic asterism **Mash-mashu-arkū**, the Eastern One of the Twins; and individually **Mu-sir-kes-da**, the Yoke of the Inclosure.

It lies 12° north of the ecliptic, the zodiac's boundary line running between it and Castor; and Burnham has found five faint companions down to 13.5 magnitude.

Elkin gives its parallax as $0''.057$; and Scheiner, its spectrum as Solar; its rate of recession from us being about one mile a second.

It is one of the lunar stars made use of in navigation; and, in astrology, differed from its companion in portending eminence and renown.

Ptolemy characterized β as *ὑπόκιρρος*, a favorite word with him for this star-tint, and generally supposed to signify "yellowish" or "reddish," Bayer correctly following the former in his *subflava*; but the *Alfonsine Tables* of 1521 translated it *quae trahit ad aerem, et est cerca*. Miss Clerke, somewhat strongly, says "fiery red."

The two *lucidae* probably bore the present title of the constellation long

antecedent to the latter's formation; they certainly were the **Mas-mas**, or Twins, of the Assyrians, independent of the rest of the figure.

As a convenient measuring-rod it may be noted that α and β stand $4\frac{1}{2}''$ apart; and this recalls an early signification of their *manzil* title, **Al Dhirā**, the Arabs' Ell measure of length that the stars were said to indicate. This naturally became the dual **Al Dhirā'an** that also was used on the Desert for other similar pairs of stars.

γ , 2.2, brilliant white.

Almeisan, **Almisan**, **Almeisam**, and **Almisam** are from **Al Maisan**, the Proudly Marching One, its early Arabic name, which Al Firuzabadi, however, said was equally applicable to any bright star.

Riccioli called it **Elhenaat**, but **Alhena** is now generally given to it, from **Al Han'ah**, the 4th *manzil*, γ , μ , ν , η , and ξ , in the feet of the Twins. This word, usually translated a Brand, or Mark, on the right side of a camel's, or horse's, neck, was defined by Al Birūnī as Winding, as though the stars of this station were winding around each other, or curving from the central star; and they were **Al Nuḥātai**, the dual form of **Al Nuḥāt**, a Camel's Hump, itself a curved line. Some Arabic authority found in them, with χ^1 and χ^2 of Orion, the **Bow** with which the Hunter is shooting at the Lion.

In Babylonia γ marked the 10th ecliptic constellation, **Mash-mashu-ah-Risū**, the Twins of the Shepherd (?), and, with η , probably was **Mas-tab-tur-tur**, the Little Twins; and, with η , μ , ν , and ξ , all in the Milky Way, may have been the Babylonian lunar mansion **Khigalla**, the Canal, and the equivalent Persian **Rakhvad**, the Sogdian **Ghathaf**, and the Khorasmian **Gawthaf**.

δ , Double, 3.8 and 8, pale white and purple.

Wasat and **Wesat** are from **Al Wasat**, the Middle, *i. e.* of the constellation; but some have referred this to the position of the star very near to the ecliptic, the central circle.

In China it was **Ta Tsun**, the Great Wine-jar.

The components are $7''$ apart, with a position angle of 203° , and may form a binary system.

Just north of δ lies the radiant point of the **Geminids**, visible early in October; another stream of meteors bearing the same title appearing from the northeastern border of the constellation and at its maximum on the 7th of December.