It was first seen to be variable by Sir John Herschel in 1836, from which time till 1840 "its variations were most marked and striking." A similar period began in 1849, and on the 5th of December, 1852, "it was actually the largest star in the northern hemisphere." It was especially brilliant in 1894. Argelander found a period of 196 days, but Schoenfeld thought periodicity questionable.

Its position is less than 3° west of the solstitial colure; it rises at sunset on the 30th of December, and culminates on the 20th of January. It has an 8th-magnitude companion 20' away, first observed by Wilhelm Struve as double, 18".5 apart, and the great glasses of the present day reveal other members in the combination still nearer and smaller than the original companion; while Barnard has discovered about it large and diffused nebulosity.

## 3. Double, 0.3 and 8, both bluish white.

Algebar and Elgebar are seen in poetry for this star, but it universally is known as Rigel, from Rijl Jauzah al Yusrā, the Left Leg of the Jauzah, by which extended title the Arabians knew it after the word Jauzah had become a personal title; the modern name first appearing in the Alfonsine Tables of 1521. These say of it, in connection with Eridanus:

Lucida que est in pede sinistro: et est communis ei et aquae: et dicitur Algebar nominatur etiam Rigel.

Riccioli had Regel; Schickard, Riglon; and Chilmead, Rigel Algenze, or Algibbar.

Al Sufi gave the earlier popular name **Rā'i al Jauzah**, the Herdsman of the Jauzah, whose camels were the stars a,  $\gamma$ ,  $\delta$ , and  $\kappa$ ; and **Al Najīd**, the Conqueror, which also was given to  $\alpha$  and  $\gamma$ .

Chrysococca termed it  $Hoic \delta i\delta \nu \mu \omega \nu$ , the Foot of -i.e. next to—the Twins; and Bayer, the Hebrew **Kesil**, of the constellation.

Smyth wrote that

independent of the "nautis infestus Orion" character of the constellation, Rigel had one of his own; for it was to the astronomical rising of this "marinus aster," in March, that St. Marinus and St. Aster owe their births in the Romish calendar.

He gave, however, no explanation of this, and these saints certainly are not familiar in any stellar connection. Possibly its "marine" character came from its location at the end of the River, and from its being given in the various editions of the *Syntaxis* and in the *Alfonsine Tables* as common

to both constellations; although the supposed stormy character of the whole group in affecting navigation may have induced the epithet for Orion's greatest star.

Astrologers said that splendor and honors fell to the lot of those who were born under it.

In the Norsemen's astronomy Rigel marked one of the great toes of Orwandil, the other toe having been broken off by the god Thor when frost-bitten, and thrown to the northern sky, where it became the little Alcor of the Greater Bear.

Although lettered below Betelgeuze, it is usually superior to it in brightness, being estimated in the *Harvard Photometry* as exactly equal to Arcturus, Capella, and Wega. Its spectrum is like that of Sirius, and it is receding from our system about 10½ miles a second.

The smaller star, at a position angle of 200°, is 9".1 away, but not easily seen owing to the brightness of the principal. It is strongly suspected that this smaller star itself is closely double.

Another minute companion is 44".5 away.

## 7, Slightly variable, 2, pale yellow.

Bellatrix, the Female Warrior, the Amazon Star, is from the translation, rather freely made in the Alfonsine Tables, of its Arabic title, Al Najīd, the Conqueror. Kazwini had this last, but Ulug Beg said Al Murzim al Najīd, the Roaring Conqueror, or, according to Hyde, the Conquering Lion heralding his presence by his roar, as if this star were announcing the immediate rising of the still more brilliant Rigel, or of the whole constellation. This Murzim occasionally appears in our day as Mirzam, which is also applied to both of the stars  $\beta$  in the two Dogs as heralds of Sirius and Procyon.

Al Sufi had **Al Ruzam**, which Hyde said was another of the very many Arabic words for the lion, but Beigel thought it also a reference to the camel, another roarer. Still it is well to remember in this connection Ideler's remark that "etymology has full play with a word which has not traveled beyond astronomical language,"—a statement equally applicable to very many other star-names.

Caesius cited Algauza from the name for the whole.

y marks the left shoulder of Orion, and naturally shared the Arabs' **Yankib**, and the Hindus' **Bahū**, titles of the star a on the right shoulder of Orion and forearm of the Stag.

In Amazon River myth Bellatrix is a Young Boy in a Canoe with an old