β, Variable and binary, 3.4 to 4.5, very white.

Sheliak, Shelyak, and **Shiliak** are from **Al Shilyāḳ,** one of the Arabian names for Lyra. The star lies about 8° southeast from Wega and 2½° west from γ.

With δ and ε it was **Tsan Tae** in China.

The changes in its brilliancy, detected by Goodricke in 1784, were fully investigated by Argelander from 1840 to 1859, and showed a regularly increasing period of variability which now is 12 days, 21¾ hours, with several fluctuations of a somewhat complex nature.

Like γ Cassiopeiae and other variables of the Sirian type, it shows in its spectrum,— perhaps the best specimen of Pickering's 4th class,— not only the usual dark lines, but also the bright lines of glowing gases, hydrogen and helium being especially conspicuous. Pickering concluded, from the singular character and behavior in the shifting of these lines, that the chief star must consist of at least two luminous bodies rotating around a common centre of gravity at a very great rate of speed, perhaps three hundred miles a second, the period of revolution equaling the period of variability. Scheiner says of it, "There is great probability that more than two bodies are concerned in the case of β Lyrae"; and yet it may not be impossible, in view of the recent discoveries at the Johns Hopkins Laboratory, that variations of *pressure* may be concerned in this remarkable shifting of lines.[1]

γ, 3.3, bright yellow,

2½° east of β is **Sulafat,** from another of the titles of the whole constellation.

Jugum, formerly seen for it, may have come from a misunderstanding of Bayer's text, where it probably is used merely to designate the star's position on the frame of the Lyre, his words being *ad dextrum cornu, Ζυγόν, Jugum,* — a fair example of the indefiniteness of much of his stellar nomenclature.

At a point ⅓ of the distance from β to γ is the wonderful **Ring Nebula,** N. G. C. 6720, 57 M., discovered in 1772 by Darquier from Toulouse, although its apparent annular form was not revealed till later by Sir William Herschel's observations. In our day high-powers show its oval form somewhat undefined at the edges, with a dark opening in the centre containing a few very faint stars, among which, visible only in the largest telescopes, but prominent in photographs, is a central condensation of light like a star.

[1] A full and interesting discussion of this appears in *Popular Astronomy* for July, 1898.