

BOSS 898

(1900, $\alpha = 3^h 48^m.7$, $\delta = +47^\circ 35'$, mag. 5.34, type B5)

The helium $\lambda 4471$ and H_γ are the only measurable lines on our plates, both being very broad and ill-defined. The star belongs to the Taurus moving cluster and should have a velocity around zero.

Plate	Date	Velocity	Lines
S318	1917, Nov. 12-626	-16	2
S363	" 26-657	-11	2

BOSS 917 or 48 PERSEI

(1900, $\alpha = 1^h 01^m.4$, $\delta = +47^\circ 27'$, mag. 1.03, type B3)

This spectrum was described by Frost in *Astrophysical Journal*, XVIII, 389, 1903, as having bright hydrogen lines on broader absorption bands. H_β and H_γ were doubly bright, while H_δ only faintly visible. Adams and Lasby in *Publications of the Astronomical Society of the Pacific*, 23, 240, record H_β and H_γ as being bright, presumably single as there is no mention of components. Merrill in *Lick Observatory Bulletin*, 237, describes 5 plates made in 1912, in which the emission showed sometimes as double and sometimes as single on the absorption bands. He gives a velocity, $+7.1$ km. per sec., for H_β emission on the plate of August 21st.

On the 5 plates secured here the emission never occurs in the double form. H_β is always present, while H_γ is absent on the third and fourth plates and very dim on the fifth plate. From measures made upon the emission lines, there seems no doubt of a real variation in velocity of the hydrogen envelope giving rise to them. Whether this can be explained through orbital motion or not cannot be stated, but the star is worthy of further investigation. The probable error for the absorption bands is so high that the velocities given, while approximate, are not to be considered as showing a variation. The absorption bands on plate 8716 are unusually faint.

Plate	Date, G.M.T.	Absorption		Emission	
		Velocity	Lines	Velocity	Lines
S336	1917, Nov. 5-723	+21	3	+5	2
S343	" 9-634	-	-	-11	2
S387	Dec. 22-510	-8	1	+19	1
S716	1919 Feb. 17-607	+10	1	-30	1
S718	" 21-570	+2	3	10	1