

fair agreement with one another and with Professor Campbell's previously determined values. The velocities obtained from the absorption part of the spectrum in the two plates measured agreed so closely with one another, and at the same time were nearly the same as Professor Campbell's and Mr. Stebbins' values, that it was not thought necessary to measure more plates.

RECORD OF OBSERVATIONS.

PLATE NO.	DATE	G.	M.	T.	EXP.	PRISM TEMP.	SEEING	OBSERVER	REMARKS
	Dec. 11	14	29	18	m.	3.5	Good	H	Absorption spectrum underexposed.
486	"	18	14	32	19 m.	1.5	"	H	Good spectrum.
493	"	19	14	50	20 m.	7.4	Fair	P	Underexposed.
515	"	27	15	55	30 m.	+ 2.1	Poor	P	Fair spectrum.
521	Jan. 9	13	45	30	m.	12.8	Fair	P	Good spectrum.
534	"	15	14	35	40 m.	- 12.8	Poor	H	Underexposed.
555	"	18	14	30	60 m.	- 8.0	Poor	P	"
563	"	21	13	55	20 m.	- 12.3	Good	P	"
569	"	22	15	16	05 m.	8.9	Fair	H	For emission lines only.
575	"	23	13	43	20 m.	- 18.8	"	P	For emission lines.
576	"	23	14	07	10 m.	- 18.8	"	P	" " "
577	"	23	14	17	05 m.	- 18.8	"	P	" " "
578	"	23	14	23	02 m.	- 18.8	"	P	" " "
579	"	26	12	15	20 m.	- 10.0	Good	P	" " "
580	"	26	12	32	10 m.	- 10.0	"	P	" " "
581	"	26	12	41	05 m.	- 9.9	"	P	" " "
582	"	26	12	46	02 m.	- 9.8	"	P	" " "
583	"	26	12	50	01 m.	- 9.8	"	P	" " "

In the above measures, the wave lengths of the star lines are determined in the usual way, from the linear positions of the star and comparison lines on the plate, by Hartmann's interpolation formula. The displacement of the lines in tenth-metres due to the motion of the star is known, when the velocity is known from the formula

$$\delta \lambda = \frac{v \lambda}{299,860}$$

The velocity is obtained from the mean of the velocities due to 25 lines near the middle of the plate, which had been identi-