

No.	Equinox 1875		Mag.	Date	Mag.	Date
	α	δ				
	h m s	$^{\circ}$ ' "				
88*	21 5 27	- 9 20.4	9	1907 Aug. 12	<15	1925 Sept. 20
89	21 24 20	-18 20.2	11	1904 June 19	<15	1925 Aug. 19
90	21 49 59	+59 56.9	15	1904 Sept. 14	<16	1925 Nov. 8
91	21 57 32	+56 21.9	<15	1904 Sept. 14	12	1925 Nov. 8
92	22 13 32	+56 40.0	10	1904 Sept. 14	12	1925 Nov. 8
93	22 29 47	+50 51.9	11	1907 Aug. 7	10	1925 Sept. 16
94	22 45 41	+64 41.3	11	1904 July 20	<15	1925 Aug. 22
95	23 7 36	+59 53.9	12	1904 July 19	16	1925 Oct. 6
96	23 9 4	+56 34.3	14	1904 July 19	12	1925 Oct. 6
97	23 12 9	+46 4.3	12	1909 Aug. 16	10	1925 Nov. 20
98	23 12 31	+48 16.6	13	1909 Aug. 16	11	1925 Nov. 20
99	23 15 24	+49 19.2	11	1909 Aug. 16	<15	1925 Nov. 20
100	23 20 43	+44 33.5	12	1909 Aug. 16	15	1925 Nov. 20
101	23 28 5	+45 38.9	12	1909 Aug. 16	<15	1925 Nov. 20
102	23 38 50	+43 13.9	<15	1909 Aug. 16	14	1925 Nov. 20
103	23 43 6	+47 10.0	10	1909 Aug. 16	12	1925 Nov. 20
104	23 58 41	+47 45.2	12	1909 Aug. 16	10	1925 Nov. 20

* Nova. See *Bulletin*, No. 826, *Harvard College Observatory*.

Yerkes Observatory,
November 30, 1925.

NEW PROPER MOTION STARS. (SECOND LIST),

BY FRANK E. ROSS.

The following list is a continuation of that in *A. J.*, No. 853. The motions were detected with the blink comparator. The plates were secured with the Bruce photographic doublet of the Yerkes Observatory. The

new plates are taken so as to match as closely as possible those made by the late Professor Barnard, with which they are compared.

TABLE I PROPER-MOTION

Group	No.	Mag.	Eq. of 1875		Identifying Star			P.M.		
			α	δ	m	$\Delta\alpha \cos \delta$	$\Delta\delta$	p	s	
			h m s	$^{\circ}$ ' "		'	'	$^{\circ}$	"	
17	87	11	9 16 36	+29 6.0	12	-1.5	- 2.5	229	0.50	BD 23°2121
	88	14	9 28 24	21 37.7	9	-1.6	- 1.2	148	0.44	
	89	9	9 30 6	23 15.9	..	..	..	232	0.33
	90	13	9 31 16	22 34.0	11	-4.1	- 2.7	268	0.84	
	91	14	9 33 47	23 17.2	9	-4.6	+ 1.6	232	0.23	
	92	15	9 33 56	22 36.1	11	-2.5	0.0	138	0.72	
	93	11	9 36 46	27 32.4	11	-0.8	- 3.8	255	0.46	
	94	11	9 40 12	26 53.2	11	+1.4	+ 3.7	219	0.35	
	95	11	9 40 10	19 6.0	9	-0.6	- 1.9	158	0.29	
	96	13	9 48 17	23 5.2	9	-6.6	- 8.3	172	0.64	
18	97	14	9 54 27	+10 29.7	10	+3.7	- 2.4	225	0.20	
19	98	8.7	10 21 38	+ 7 21.7	356	0.29	A. G. Leipzig II 5490
	99	12	10 28 49	8 10.5	11	+2.5	- 1.2	152	0.61	

Group	No.	Mag.	Eq. of 1875		Identifying Star			P.M.		
			α	δ	m	$\Delta\alpha \cos \delta$	$\Delta\delta$	p	s	
			^h ^m ^s	[°] [']		'	'	[°]	"	
20	100	11	10 27 34	+18 40.3	12	-0.6	- 1.8	225	0.21	BD 18°2441
	101	13	10 35 59	20 11.0	11	-0.3	- 1.9	138	0.15	
	102	13	10 38 18	20 20.9	11	+0.2	- 2.7	180	0.13	
	103	12	10 39 51	23 23.0	11	-3.7	+ 0.7	142	0.26	
	104	10	10 53 24	23 30.5	9	+6.1	0.0	235	0.46	
	105	9.5	10 56 48	18 48.8	..	..	..	143	0.26
21	106	10	10 42 43	+57 6.5	10	-7.0	+ 0.3	147	0.51	
	107	12	10 48 17	56 42.2	12	-0.6	+ 3.5	273	0.56	
	108	15	10 58 52	53 53.4	9	-2.4	+ 0.5	227	0.77	
	109	9	11 20 10	60 14.9	11	+3.1	- 0.8	218	0.55	
	110	13	11 21 27	57 25.1	12	+0.8	- 2.5	130	0.70	
	111	13	11 24 18	59 53.3	9	-2.4	- 5.1	158	0.68	
	112	12	11 30 46	59 24.5	12	0.0	- 1.3	190	0.27	
	113	11	11 35 3	59 31.6	11	0.0	- 2.3	253	0.33	
22	114	13	11 30 7	+15 5.3	12	+4.0	- 6.6	200	0.53	
	115	13	11 35 32	15 28.4	9	-2.6	+ 2.7	311	0.40	
	116	11	11 36 4	12 41.5	11	+1.9	- 2.4	221	0.29	
	117	12	11 40 4	12 40.6	9	0.0	+ 1.9	275	0.35	
	118	14	11 44 32	15 56.4	12	+1.3	+ 0.3	159	0.30	
	119	11	11 47 43	10 31.2	8	-0.2	- 4.2	172	0.75	
	120	13	11 48 6	14 16.4	13	+2.2	- 3.5	236	0.29	
	121	9.3	11 50 29	14 4.4	..	..	..	245	0.42
	122	11	11 51 11	12 31.1	10	0.0	- 3.3	287	0.77	
	123	9.2	11 59 34	15 21.1	..	..	..	146	0.47
	124	9.1	12 1 9	13 44.0	..	..	..	254	0.41
	125	10	12 4 41	12 50.3	11	-0.4	+ 1.3	315	0.29	
	126	9.1	12 5 41	13 58.4	..	..	..	209	0.51
	127	11	12 7 0	17 24.0	12	+1.6	- 0.7	223	0.65	
23	128	12	11 41 16	+ 1 31.5	13	-3.7	0.0	29	1.40	
	129	13	11 48 46	1 40.2	14	0.0	- 0.3	265	0.75	
24	130	9.5	14 23 40	+16 3.4	311	1.82	BD 16°2658
25	131	9.5	17 30 36	-27 6.9	245	0.54	Cord DM-27°11772
	132	12	17 31 56	22 36.9	11	+4.1	- 2.8	192	0.52	
	133	13	17 35 58	18 27.0	12	-0.8	+ 0.5	197	0.56	
	134	14	17 40 4	22 53.5	8.4	-2.7	+ 1.9	184	0.28	
	135	11	17 44 22	24 37.6	12	-1.5	+ 0.4	231	0.50	
26	136	13	18 16 6	+ 6 16.9	11	+0.5	0.0	293	1.20	
	137	13	18 21 1	4 0.0	14	+0.2	+ 1.0	212	0.31	
	138	14	18 34 17	7 32.0	8.4	+3.7	- 7.1	166	0.46	
	139	10	18 36 56	7 36.1	8.5	-1.7	+ 0.8	153	0.30	
	140	8.5	18 37 3	7 35.3	..	..	..	153	0.30
	141	13	18 38 24	6 20.4	13	-2.5	- 0.6	170	0.28	
	142	10	18 43 46	2 57.0	10	-3.2	- 3.3	197	0.54	

Group	No.	Mag.	Eq. of 1875		Identifying Star			P.M.		
			α	δ	m	$\Delta\alpha \cos \delta$	$\Delta\delta$	p	s	
			^h ^m ^s	[°] [']		[']	[']	[°]	["]	
27	143	12	18 33 10	+34 35.0	11	0.0	- 0.8	264	0.42	
	144	12	18 34 54	31 1.0	13	-1.1	- 0.7	306	0.17	
	145	13	18 37 19	31 42.5	14	-1.3	+ 1.3	266	0.30	
	146	13	18 38 25	33 10.3	14	+1.5	+ 1.1	21	0.28	
	147	13	18 51 4	35 14.6	11	-1.4	+ 3.8	180	0.30	
28	148	9.5	18 27 31	+13 4.2	..	..	..	178	0.33	BD 13°3683
	149	13	18 30 34	13 30.1	9	+0.5	+ 0.7	38	0.39	
	150	14	18 31 44	11 21.2	9	-3.6	+ 0.7	302	0.10	
	151	9.5	18 46 38	11 3.9	9.7	-2.0	+ 0.3	225	0.39	BD 11°3645
	152	8.9	18 48 3	8 48.4	..	..	..	106	0.18	A. G. Leipzig I 8886
29	153	11	18 39 26	-23 38.1	11	+2.8	+ 0.3	240	0.35	
	154	11	18 42 8	23 58.3	12	+4.4	- 4.5	104	0.74	
	155	8.9	18 46 41	23 2.7	..	..	..	201	0.40	Cord. A. 13129
	156	11	18 46 58	22 43.8	6	-8.1	+ 5.8	149	0.40	
	157	9.3	18 58 27	18 12.3	..	..	..	169	0.43	BD -18°5199
	158	9.1	18 59 0	19 15.0	..	..	..	229	0.23	BD -19°5293
	159	11	19 0 13	19 47.7	10	+3.1	- 0.8	190	0.17	
30	160	10	18 46 16	+16 26.7	8.4	+3.8	+ 0.8	207	0.61	
	161	10	18 56 14	15 53.4	9.5	-4.8	+ 5.7	207	0.38	
31	162	11	19 15 53	-22 20.7	11	-1.0	+ 0.3	166	0.44	
32	163	13	19 16 49	+28 25.1	9.4	+1.2	+ 0.7	75	0.89	
	164	14	19 20 7	28 5.9	12	+0.6	+ 0.4	17	0.35	
	165	11	19 40 39	26 51.0	9	-0.3	- 1.7	183	1.34	
33	166	11	19 58 10	+47 36.1	11	-1.6	+ 1.3	37	0.39	
	167	9	19 58 19	45 25.7	10	+4.0	+ 1.6	68	0.24	
	168	10	20 1 36	45 29.1	10	+3.5	- 0.5	172	0.14	
	169	10	20 1 37	45 18.5	9	+4.1	- 1.0	31	0.20	
	170	9.5	20 4 47	42 29.5	..	..	..	21	0.30	BD 42°3607
	171	12	20 5 59	45 45.9	10	+2.0	+ 1.0	18	0.29	
	172	13	20 7 35	47 27.5	7	+6.0	+ 1.0	165	0.20	
	173	8.7	20 8 6	45 55.0	..	..	..	51	0.50	A. G. Bonn 13897
	174	9.4	20 9 44	44 27.8	..	..	..	76	0.21	BD 44°3393
	175	12	20 17 14	46 3.6	9	0.0	- 2.6	231	0.41	
	176	12	20 18 46	46 54.3	12	-1.9	0.0	51	0.35	
34	177	12	20 29 25	44 34.0	12	+1.7	- 3.0	167	0.13	
	178	10	21 0 22	48 42.4	9	-0.5	- 4.1	17	0.21	
	179	11	20 0 56	+29 0.2	9	-3.7	+ 2.7	332	0.49	
	180	11	20 0 56	28 59.4	9	-3.7	+ 1.9	332	0.49	
	181	10	20 11 32	29 8.6	9	-6.8	+ 3.1	51	0.19	
	182	11	20 12 9	29 20.6	9	-3.5	0.0	219	0.27	
	183	9.0	20 15 1	32 4.7	..	..	..	337	0.13	A. G. Leiden 8153
	184	10	20 17 25	33 2.2	10	-0.5	0.0	223	0.34	

Group	No.	Mag.	Eq. of 1875		Identifying Star			P.M.		
			α	δ	m	$\Delta\alpha \cos \delta$	$\Delta\delta$	p	s	
			^h ^m ^s	^o [']		[']	[']	^o	["]	
34	185	8.5	20 17 25	+31 55.0	..	..	..	353	0.32	A. G. Leiden 8183
	186	10	20 18 31	33 5.6	9.5	+3.0	- 0.3	225	0.23	
	187	9.4	20 27 0	32 34.7	..	..	..	31	0.45	BD 32°3853
35	188	14	20 26 46	+38 7.4	9	+2.9	- 4.6	16	0.75	
36	189	11	20 40 26	-10 38.7	11	-2.0	- 2.6	169	0.38	
	190	9.6	20 40 39	14 52.4	..	..	..	211	0.39	BD -14°5850
	191	13	20 46 47	8 58.7	13	+1.3	- 0.6	196	0.14	
	192	12	20 49 28	12 38.1	9	+2.2	+ 0.5	188	0.50	
	193	11	20 50 10	5 19.2	9	+1.1	+ 7.0	116	0.79	
37	194	9.4	20 57 10	+54 49.4	..	..	..	215	0.63	BD 54°2461
	195	11	20 58 2	54 45.5	9	+7.5	- 3.9	291	0.39	
	196	12	21 10 40	53 41.0	10	-0.6	- 0.3	36	0.27	
	197	12	21 14 34	51 52.5	8	+7.0	- 4.6	225	0.57	
	198	13	21 22 30	54 40.8	9	-0.9	+ 5.9	42	0.30	
	199	9.5	21 33 35	52 30.9	..	..	..	52	0.33	BD 52°2996
	200	12	21 35 46	53 34.6	10	-0.2	- 0.8	64	0.60	
	201	14	21 36 14	53 26.3	8	+0.3	- 1.5	75	0.55	
38	202	13	21 20 58	-15 4.3	12	-1.2	- 1.6	176	0.14	
	203	12	21 29 26	13 51.9	11	-1.4	- 6.8	118	0.27	
	204	12	21 34 46	15 14.1	8	+2.1	+10.5	59	0.23	
	205	12	21 34 55	16 11.0	10	+3.6	+ 0.4	198	0.33	
	206	13	21 35 22	12 43.1	8	+1.6	+ 6.0	184	0.66	
	207	13	21 38 0	13 28.1	10	-3.0	+ 2.1	217	0.21	
	208	13	21 40 48	14 28.8	12	-4.0	- 4.2	118	0.33	
	209	10	21 43 3	12 15.4	8	-4.4	- 4.1	204	0.52	
	39	210	9.0	21 29 38	+61 26.5	71	0.36	A. G. Hels. G. 12308
211		9.1	21 39 43	62 36.1	..	..	..	70	0.32	A. G. Hels. G. 12466
212		14	21 41 34	61 13.4	8.4	-7.9	- 0.8	125	0.32	
213		12	21 43 10	61 27.6	8.5	-7.4	- 1.0	60	0.35	
214		11	22 36 28	64 15.2	9	+2.6	+ 2.4	99	0.39	
40	215	11	21 33 0	+55 33.1	10	-3.0	+ 0.7	6	0.17	
41	216	8.0	22 12 29	+48 34.1	..	..	..	282	0.18	A. G. Bonn 16559
	217	13	22 15 51	49 34.2	10	+0.7	+ 0.3	108	0.23	
	218	10	22 17 12	48 14.9	8.4	-0.3	+ 2.3	214	0.27	
	219	12	22 23 28	50 32.2	8	+0.7	- 7.9	225	0.22	
	220	9.3	22 26 34	49 3.5	..	..	..	49	0.41	BD 48°3755
	221	10	22 28 20	52 2.6	9	-5.9	+ 2.2	64	0.25	
	222	9.0	22 36 11	47 4.4	..	..	..	90	0.14	A. G. Bonn 17013
	223	9	22 40 9	44 43.8	8	-1.1	- 4.9	96	0.40	
42	224	10.5	22 35 21	+61 4.2	10.5	+5.7	+ 4.6	280	0.17	
	225	10	22 37 59	58 25.8	10	+8.3	0.0	209	0.23	

Group	No.	Mag.	Eq. of 1875		Identifying Star			P.M.		
			α	δ	m	$\Delta\alpha \cos \delta$	$\Delta\delta$	p	s	
			h m s	° ' "		'	'	°	"	
42	226	12	22 49 31	+60 20.1	11	+1.4	+ 1.2	261	0.67	
	227	12	22 51 14	58 14.6	8	+1.5	+ 1.4	85	0.34	
	228	11	22 58 38	61 8.4	10	+2.2	+ 2.3	104	0.25	
	229	12	23 6 10	59 33.0	9	+0.9	- 1.4	56	0.22	
	230	10.5	23 14 2	57 55.6	10.5	+1.2	+ 0.6	72	0.26	
	231	9	23 14 12	60 2.2	9.5	-1.4	+ 1.4	80	0.27	
	232	11	23 15 59	59 13.1	9	+2.9	+ 7.2	39	0.32	
	233	9.5	23 20 50	59 56.3	9.7	-2.3	+ 0.1	97	0.40	BD 59°2723
	234	11	23 30 42	59 16.6	10	+5.3	+ 1.4	45	0.24	
235	9	23 34 20	58 34.1	9	-2.5	+ 2.5	114	0.24		
43	236	10	22 41 8	+29 11.6	8	+0.8	- 3.5	78	0.42	
	237	9.5	22 47 27	27 5.9	9	-0.5	+ 1.8	96	0.53	
	238	10	22 48 0	26 17.7	9	+1.3	- 3.9	136	0.33	
	239	9.2	22 51 6	27 20.2	..	..	..	90	0.22	BD 27°4445
	240	9.5	22 52 7	27 29.0	..	..	..	218	0.16	BD 27°4453
	241	12	22 52 9	27 32.1	10	-1.1	+ 1.2	102	0.37	
	242	11	23 2 45	26 20.8	7.5	-4.5	+ 6.7	137	0.18	
	243	10	23 14 19	29 56.5	10	+1.1	- 5.5	92	0.47	
44	244	9.5	23 12 25	+45 36.2	9.0	-1.2	- 3.8	74	0.43	BD 45°4188
	245	12	23 21 45	48 33.6	9	+1.8	- 0.2	117	0.44	
	246	9.5	23 22 36	43 42.5	10	-2.7	+ 1.7	67	0.28	
	247	13	23 24 38	45 58.6	12	+0.1	- 1.0	99	0.40	
	248	12	23 35 45	43 31.1	10	-1.2	+ 0.7	176	1.82	
	249	12	23 41 48	48 19.1	10	-0.8	+ 2.7	96	0.58	
	250	11	23 45 21	49 3.2	9	-5.7	- 3.4	45	0.45	
	251	11	23 47 20	45 39.2	9	-2.7	0.0	124	0.29	
	252	9.3	23 53 22	49 25.1	..	..	..	103	0.59	BD 49°4301

TABLE 2 DATA ON PLATES

Group	Plate Center		Epochs of Plates		Group	Plate Center		Epochs of Plates	
	α	δ				α	δ		
	h m	°				h m	°		
17	9 41	+25	1907 Mar. 10	1925 Mar. 28	31	19 24	-18	1908 June 24	1925 Sept. 20
18	10 4	+12	1909 Nov. 22	1925 Mar. 30	32	19 28	+28	1904 May 20	1925 Aug. 18
19	10 29	+10	1907 Mar. 8	1925 Mar. 30	33	20 20	+45	1904 Aug. 13	1925 Sept. 13
20	10 39	+20	1907 Mar. 31	1925 Mar. 24	34	20 20	+31	1907 June 28	1925 Oct. 9
21	11 8	+55	1907 Apr. 5	1925 Apr. 15	35*	20 15	+40	1905 July 31	1925 Aug. 19
22	11 45	+15	1905 Mar. 28	1925 Mar. 27	36*	20 48	-10	1907 Aug. 12	1925 Sept. 20
23*	11 46	+ 2	1909 Feb. 24	1925 Mar. 25	37	21 24	+52	1909 July 23	1925 Oct. 9
24*	14 12	+20	1904 Apr. 13	1925 June 18	38*	21 36	-17	1904 June 19	1925 Aug. 19
25	17 39	-21	1905 Aug. 2	1925 July 10	39*	21 55	+63	1904 July 20	1925 Aug. 22
26	18 33	+ 5	1905 July 10	1925 July 22	40	21 36	+57	1904 Sept. 14	1925 Nov. 8
27	18 48	+33	1906 Sept. 16	1925 June 27	41	22 27	+50	1907 Aug. 7	1925 Sept. 16
28	18 33	+11	1904 June 12	1925 Aug. 21	42	23 3	+59	1904 July 19	1925 Oct. 6
29	18 52	-21	1904 June 22	1925 Aug. 21	43	23 0	+28	1908 June 8	1925 Sept. 23
30*	18 56	+15	1906 Apr. 2	1925 Aug. 16	44	23 34	+46	1909 Aug. 16	1925 Nov. 20

* Poorly matched for blinking.

Yerkes Observatory,
November 30, 1925

CONTENTS.

OBSERVATIONS OF COMETS, BY ERNEST CLARE BOWER.
NEW VARIABLE STARS (SECOND LIST), BY FRANK E. ROSS.
NEW PROPER MOTION STARS (SECOND LIST), BY FRANK E. ROSS.

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