2143
2145

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Topographic

Field No. 2143 Office No. 2145

LOCALITY

State Alaska

General locality S. E. Boundary

Locality of Alaska

1893

~~194~~

CHIEF OF PARTY

Flemer, Dickens Tittman & McGrath

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U. S. COAST AND GEODETIC SURVEY.

T. C. Mendenhall, Superintendent.

State: Alaska.

DESCRIPTIVE REPORT.

Topographic Sheets Nos. 2143 and 2145.

LOCALITY:

S. E. Boundary of Alaska.

1893.

CHIEF OF PARTY:

Flemer, Dickins, Tittmann & McGrath.

2143

Washington, D.C.
April 9th 1894.

Mr. A.H. Tillmann,
Assist. U.S. C.&G.S.

Dear Sir: Enclosed please find one vol. of angles (horiz. & vert.) incl. sketches, one package of Topogr. sketches and one package "Computation of Triangles," with Triangulation sketch, upon which the topographical reconnaissance maps, registered under the numbers 2143 and 2145 in the Archives, have been constructed.

Many of the points shown on the enclosed sketch have been plotted by means of the station points, as their distances from other points could not be computed, not even in the rough manner of the accompanying "Comp. of Triangles".

Very respectfully
J. A. Flemer

NO.	STATIONS.	OBSERVED ANGLES.	CORR'N.	SPHER'L ANGLES.	SPH'L EXCESS.	PLANE ANGLES AND DISTANCES.	LOGARITHMS.

Triangulation data for Topogl. Reconnaissance So. of the Stikine River,

Boundary Survey, S. E. Alaska,
1893.

Transit No. 116 — Grad. to minutes N. E. S. W.

Note: This topogl. reconnaissance was made by the Canadian topogl. party, in charge of Capt. A. G. Talbot, D.L.S., by means of the photo-topographic method. I merely accompanied that party and reproduced their work by means of a rough triangulation and sketches.

J. A. Flemer.

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This triangulation begins with Assist. O.H. Tittmann's scheme, which he laid out at the mouth of the Stikine River.

U. S. Coast and Geodetic Survey.
(Ed. 9-24-'91—2,500.)

STATE: Alaska.

NO.	STATIONS.	OBSERVED ANGLES.	CORR'N.	SPHER'L ANGLES.	SPH'L EXCESS.	PLANE ANGLES AND DISTANCES.	LOGARITHMS.
	North Base '93 - South Base					2320.2	3.36553
	Hammock	71 27				71 27	9.97683
1.	North B. '93	61 50				61 50	9.94526
	South B. '93	46 43				46 43	9.86211
	(4) North Base - Hammock					1781.6	3.25081
	(3) South Base - "					2157.5	3.33396
	North Base '93 - South Base					2320.2	3.36553
	Rothsay	38 00				38 00	9.78934
2.	North Base	40 59				40 59	9.81680
	South Base	101 02	-1			101 01	9.99192
	Rothsay - North Base '93					3699.2	3.56811
	" - South Base '93					2471.7	3.39299
	(2) Rothsay - South Base					2471.7	3.39299
	Hammock	17 16				17 16	9.47249
3.	Rothsay	15 00				15 00	9.41347
	South B.	147 45	-1			147 44	9.72743
	(1) Hammock - South Base					2157.6	3.33397
	(4) " - Rothsay					4445.6	3.64793
	(2) North Base '93 - Rothsay					3699.2	3.56811
	Hammock	54 11				54 11	9.90896
4.	North Base	102 49				102 49	9.98904
	Rothsay	23 00				23 00	9.59188
	(1) Hammock - North Base					1782.5	3.25703
	(3) " - Rothsay					4448.3	3.64819

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NO.	STATIONS.	OBSERVED ANGLES.	CORR'N.	SPHER'L ANGLES.	SPH'L EXCESS.	PLANE ANGLES AND DISTANCES.	LOGARITHMS.
	(2) Rothsay - South Base '93					2471.7	3.39299
	Gibbons	cancl.				22 57	9.59098
	5. Rothsay	74 40				74 40	9.98426
	South Base	82 23				82 23	9.99615
	(10) Gibbons - Rothsay					6282.9	3.79816
	" - South Base					6113.2	3.78627
	(3,4) Hammock - Rothsay					4447.0	3.64807
	Kadin	32 16				32 16	9.72743
	6 Hammock	66 49				66 49	9.96343
	Rothsay	80 55				80 55	9.99452
	Kadin - Hammock					8225.4	3.91576
	" - Rothsay					7657.2	3.88407
	(6) Kadin - Hammock					8225.4	3.91576
	Wrangell	cancl.				57 28	9.89334
	7 Kadin	82 10				82 10	9.99593
	Hammock	46 22				46 22	9.85960
	(34) Wrangell - Kadin					7610.6	3.88142
	" - Hammock					10417.0	4.01775
	(7) Kadin - Wrangell					7610.6	3.88142
	Joe	33 14				33 15	9.73901
	Kadin	41 12				41 13	9.81882
	Wrangell	105 30				105 32	9.98384
	(19) Joe - Kadin					13373.9	4.12625
	(21) " - Wrangell					9145.9	3.96123

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	(6) Hammock - Kadin					8225.4	3.91576
	Dry Island	concl.				38° 25'	9.79335
9.	Hammock	112 43				112 43	9.96493
	Kadin	28 52				28 52	9.68374
	Dry Island - Hammock					6390.8	3.80555
	" " - Kadin					12210.1	4.08674
	(6) Kadin - Rothsay					7657.2	3.88407
	Gibbons	concl.				21° 40'	9.56727
10.	Rothsay	140 36				140 36	9.80259
	Kadin	17 44				17 44	9.48371
	(5) Gibbons - Rothsay					6317.0	3.80057
	(39) " - Kadin					13164	4.11939
	(9) Dry Island - Kadin					12210.1	4.08674
	Green Point	50° 24'				50° 24'	9.88678
11	Kadin	111 40				111 40	9.96818
	Dry Island	concl.				17 56	9.48842
	Green Point - Kadin					4879.6	3.68838
	" " Dry Island					14728.0	4.16814
	(11) Green Point - Kadin					4879.6	3.68838
	Garnet	52° 18'				52° 17'	9.89830
12	Green Point	89 07				89 06	9.99995
	Kadin	38 35				38 35	9.79494
	Garnet - Green Point					3846.1	3.58502
	" - Kadin					6166.4	3.79003

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NO.	STATIONS.	OBSERVED ANGLES.	CORR'N.	SPHER'L ANGLES.	SPH'L EXCESS.	PLANE ANGLES AND DISTANCES.	LOGARITHMS.
	(11) Green Point - Kadin					4879.6	3.68838
	Lithograph	41° 36′				41 35	9.82198
13	Kadin	64 21				64 20	9.95488
	Green Point	74 06				74 05	9.98302
	Lithograph - Kadin					7070.0	3.84942
	" - Green Point					6626.5	3.82128
	(13) Lithograph - Kadin					7070.0	3.84942
	Accommodation	81° 11′				81° 10′	9.99482
14	Lithograph	49 34				49 33	9.88137
	Kadin	49 17				49 17	9.87964
	Accommodation - Lithograph					5423.0	3.73424
	" - Kadin					5444.6	3.73597
	(11) Green Point - Kadin					4879.6	3.68838
	Sinnowf	44° 10′				44° 10′	9.84308
15	Kadin	49 06				49 06	9.87844
	Green Point	cond.				86 44	9.99929
	Sinnowf - Kadin					6991.8	3.84459
	" - Green Point					5293.5	3.72374
	(14) Accommodation - Kadin					5444.6	3.73597
	Sinnowf	50 49				50° 49′	9.88937
16	Kadin	34 02				34 02	9.74794
	Accommodation	94 09				94 09	9.99886
	(15) Sinnowf - Kadin					7005.8	3.84546
	" - Accommodation					3931.3	3.59454

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NO.	STATIONS.	OBSERVED ANGLES.	CORR'N.	SPHER'L ANGLES.	SPH'L EXCESS.	PLANE ANGLES AND DISTANCES.	LOGARITHMS.
	(15,16) Simonof - Kadin					6998.8	3.84502
	Midget	83 56				83 56	9.99756
17.	Simonof	69 33				69 33	9.97173
	Kadin	26 31				26 31	9.64978
	Midget - Simonof					3142.2	3.49724
	" - Kadin					6594.6	3.81919
	(17) Midget - Simonof					3142.2	3.49724
	Joe	25 09				25 09	9.62838
18.	Simonof	92 27				92 27	9.99960
	Midget	62 24				62 24	9.94753
	(19) Joe - Simonof					6552.3	3.81639
	" - Midget					7386.9	3.86846
	(15,16) Simonof - Kadin					6998.8	3.84502
	Joe	18 57				9 04	9.19751
19.	Simonof	162 23				162 26	9.47974
	Kadin	8 30				8 30	9.16970
	(18) Joe - Simonof					6564.6	3.81721
	(8) " - Kadin					13404.9	4.12725
	(18,19) Joe - Simonof					6558.4	3.81680
	Eufin	33 35				33 35	9.74284
20.	Joe	111 17				111 20	9.96917
	Simonof	35 02				35 05	9.75949
	(22,23) Eufin - Joe					6814.7	3.83345
	(24) " - Simonof					11044.0	4.04313

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NO.	STATIONS.	OBSERVED ANGLES.	CORR'N.	SPHER'L ANGLES.	SPH'L EXCESS.	PLANE ANGLES AND DISTANCES.	LOGARITHMS.
	(18.19) Joe – Simonof					65584	3.81680
	Wrangell	cond.				45 05	9.85012
21	Joe	41 23				41 23	9.82026
	Simonof	93 32				93 32	9.99917
	(8) Wrangell – Joe					92437	3.96585
	" – Simonof					61226	3.78694
	(8) Joe – Wrangell					91459	3.96123
	Enfin	67 38				67 38	9.96603
22	Joe	69 44				69 44	9.97224
	Wrangell	cond.				42 38	9.83078
	(20) (23) Enfin – Joe					66985	3.82598
	" – Wrangell					92776	3.96744
	(8) Joe – Kadin					13389	4.12675
	Enfin	53 13				53 13	9.90358
23	Joe	102 58				102 58	9.98878
	Kadin	cond.				23 49	9.60618
	(20) (22) Enfin – Joe					67507	3.82935
	(20) " – Kadin					16291	4.21195
	(15.16) Kadin – Simonof					6998.8	3.84502
	Enfin	19°28'				19° 28	9.52278
24	Kadin	cond.				31 34	9.71891
	Simonof	128 58				128 58	9.89071
	(20) Enfin – Kadin					16328.9	4.21295
	(20) " – Simonof					10994.0	4.04115

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	(20, 22, 23) Enfin — Joe					6754.6	3.82960
	Speck	85 43	'			85 42	9.99878
25.	Enfin	16 52	'			16 57	9.46220
	Joe	77 28	'			77 27	9.98950
	(26) Speck — Enfin					6611.8	3.82032
	" — Joe					1963.4	3.29302
	(22) Enfin — Strangell					9277.6	3.96744
	Speck	58 23				58 23	9.93022
26.	Enfin	84 30				84 30	9.99800
	Strangell	cond.				37 07	9.78063
	(25) Speck — Enfin					6574.3	3.81785
	" — Strangell					10845	4.03522
	(25, 26) Speck — Enfin					6593	3.81908
	Hub	62 20				62 20	9.94727
27.	Speck	110 50				110 50	9.97063
	Enfin	cond.				6 50	9.07548
	Hub — Enfin					6957.3	3.84244
	" — Speck					885.7	2.94729
	(20, 22, 23) Enfin — Joe					6754.6	3.82960
	Bush	42 13				42 13	9.82733
28.	Enfin	cond.				68 18	9.96808
	Joe	69 29				69 29	9.97154
	Bush — Enfin					9414.7	3.97381
	" — Joe					9340.0	3.97035

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	(28) Enfin - Bush					9414.7	3.97381
	Jub	89° 21'				89 21	9.99997
29	Enfin	cond.				42 20	9.82830
	Bush	48 18½ ½				48 19	9.87322
	Jub - Enfin					7031.7	3.84706
	" - Bush					6340.7	3.80214
	(29) Jub - Bush					6340.7	3.80214
	Rub	59 06½ ½				59 06	9.93352
30.	Jub	39 28				39 28	9.80320
	Bush	81 26½ ½				81 26	9.99573
	Rub - Jub					7307.2	3.86375
	" - Bush					4697.0	3.67182
	(30) Rub - Bush					4697.0	3.67182
	Coach	31 49				31 49	9.72198
31.	Rub	33 57½ ½				33 57	9.74587
	Bush	114 20				114 20	9.95960
	Coach - Rub					8117.8	3.90944
	" - Bush					4962.6	3.69571
	(31) Coach - Bush					4962.6	3.69571
	Pseudo	cond.				84 32	9.99802
32.	Coach	58 10				58 10	9.92921
	Bush	37 18				37 18	9.78246
	Pseudo - Coach					3021.0	3.48015
	" - Bush					4235.4	3.62690

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	(7) Wrangell - Hammock					10417.0	4.01775
	Bald Peak	57 47				57 47	9.89524
33	Wrangell	concl.				57 49	9.92755
	Hammock	70 24				70 24	9.97408
	(7) (35) Bald Peak - Wrangell					12491.0	4.09659
	" " - Hammock					11221.9	4.05006
	(10) Gibbons - Kadin					13164.0	4.11939
	Wrangell	77 57				77 57	9.99032
34	Gibbons	concl.				34 25	9.75221
	Kadin	67 38				67 38	9.96603
	(37) Wrangell - Gibbons					12448.1	4.09510
	(7) " - Kadin					7608.1	3.88128
	(34) Wrangell - Gibbons					12448.1	4.09510
	Bald Peak	73 23				73 23	9.98147
35	Wrangell	31 17				31 17	9.71539
	Gibbons	concl.				75 20	9.98561
	(7) (33) Bald Peak - Wrangell					12567.8	4.09924
	(37) " " - Gibbons					6745.6	3.82902
	(35) Gibbons - Bald Peak					6745.6	3.82902
	Cannery	con'd.				39 00	9.79887
36	Gibbons	76 22				76 22	9.98759
	Bald Peak	64 38				64 38	9.95597
	Cannery - Gibbons					9685.5	3.98612
	" - Bald Peak					10417.0	4.01774

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NO.	STATIONS.	OBSERVED ANGLES.	CORR'N.	SPHER'L ANGLES.	SPH'L EXCESS.	PLANE ANGLES AND DISTANCES.	LOGARITHMS.
	(33.35) Wrangell - Bald Peak					12614.8	4.10088
	Gibbons	cond.				75 20	9.98561
37	Bald Pk	73 23				73 23	9.98147
	Wrangell	31 17				31 17	9.71539
	(35) Gibbons - Bald Peak					6771.7	3.83066
	(34) " - Wrangell					12495.1	4.09674
	(35-37) Gibbons - Bald Peak					6758.6	3.82986
	Round Mt.	cond.				32 37	9.73160
38	Gibbons	19 39				19 39	9.52669
	Bald Peak	127 44				127 44	9.89810
	Round Mt. - Gibbons					9916.5	3.99636
	" " - Bald Peak					4216.5	3.62495
	(7.34) Kadin - Wrangell					7609.3	3.88134
	Gibbons	cond.				34 25	9.75221
39	Wrangell	77 57				77 57	9.99032
	Kadin	67 38				67 38	9.96603
	(34.37) Gibbons - Wrangell					12450	4.09576
	(10) " - Kadin					13166	4.11945
	(35,37) Gibbons - Bald Peak					6758.6	3.82986
	Tipp	17 30				17 30	9.47814
(40)	Bald Peak	143 01				143 01	9.77930
	Gibbons	19 29				19 29	9.52324
	(41) Tipp - Bald Peak					7496.5	3.87486
	" - Gibbons					13521.9	4.13102

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	(33,35) Wrangell - Bald Peak					12529.4	4.09793
	Tipp	22 50				22 50	9.58884
41.	Wrangell	cond				13 26	9.36608
	Bald Peak	143 44				143 44	9.77199
	Tipp - Wrangell					19100	4.28103
	(40) - Bald Peak					7501.0	3.87572
	(33.35) Wrangell - Bald Peak					12529.4	4.09793
	Rynda	30 38				30 38	9.70718
42.	Wrangell	cond.				18 23	9.49882
	Bald Peak	130 59				130 59	9.87789
	Rynda - Wrangell					18562.9	4.26864
	(44) " - Bald Peak					7754.7	3.88957
	(33.35) Wrangell - Bald Peak					12529.4	4.09793
	Kelly	33 59				33 59	9.74737
43	Wrangell	cond				28 04	9.67256
	Bald Peak	117 57				117 57	9.94614
	Kelly - Wrangell					19761.0	4.29580
	" - Bald Peak					10525.0	4.02222
	(43) Bald Peak - Kelly					10525.0	4.02222
	Rynda	136 57				136 57	9.83419
44.	Kelly	30 01				30 01	9.69919
	Bald Peak	13 02				13 02	9.35318
	(40) Rynda - Kelly					3477.1	3.54121
	(42) " - Bald Peak					7713.0	3.88722

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	(43) Bald Peak - Kelly					10525.0	4.02222
	Castle	cond.				23 59	9.60903
45.	Bald Peak	61 31				61 31	9.94397
	Kelly	94 30				94 30	9.99866
	(50) Castle - Kelly					22759.9	4.35716
	(46) " - Bald Peak					25814.0	4.41185
	(42, 44) Rynda - Bald Peak					7733.8	3.88839
	Castle	cond.				15 41	9.43188
46.	Rynda	115 50				115 50	9.95427
	Bald Peak	48 29				48 29	9.87434
	50) Castle - Rynda					21421.9	4.33085
	45) " - Bald Peak					25750.0	4.41078
	(7, 34) Kadin - Wrangell					7609.4	3.88135
	Bald Peak	cond.				25° 31′	9.63425
47	Wrangell	109° 14′				109 14	9.97506
	Kadin	45 15				45 15	9.85137
	Bald Peak - Kadin					16678.9	4.22216
	(33, 35) " " - Wrangell					12545.0	4.09847
	(47) Bald Peak - Kadin					16678.9	4.22216
	Castle	cond.				9 39	9.22435
48.	Bald Peak	155 07				155 07	9.62405
	Kadin	15 14				15 14	9.41954
	(45. 46) Castle Peak - Bald Peak					26143.0	4.41735
	" " - Kadin					41866.0	4.62186

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	Ryndu - Bald Peak					7733.8	3.88839
	Kelly	30° 01′				30° 01′	9.69919
49.	Bald Peak	13 02				13 02	9.35318
	Ryndu	cont.				136 57	9.83419
	(43) Kelly - Bald Peak					10553.8	4.02339
	(44) " - Ryndu					3494.5	3.54238
	(44-49) Kelly - Ryndu					3485.8	3.54230
	Little Volcano	cont.				9° 58′	9.23823
50	Ryndu	45° 38′				45 38	9.85423
	Kelly	123 24				123 24	9.92077
	Little Volcano - Ryndu					16782.0	4.22484
	" " - Kelly					14398.0	4.15830

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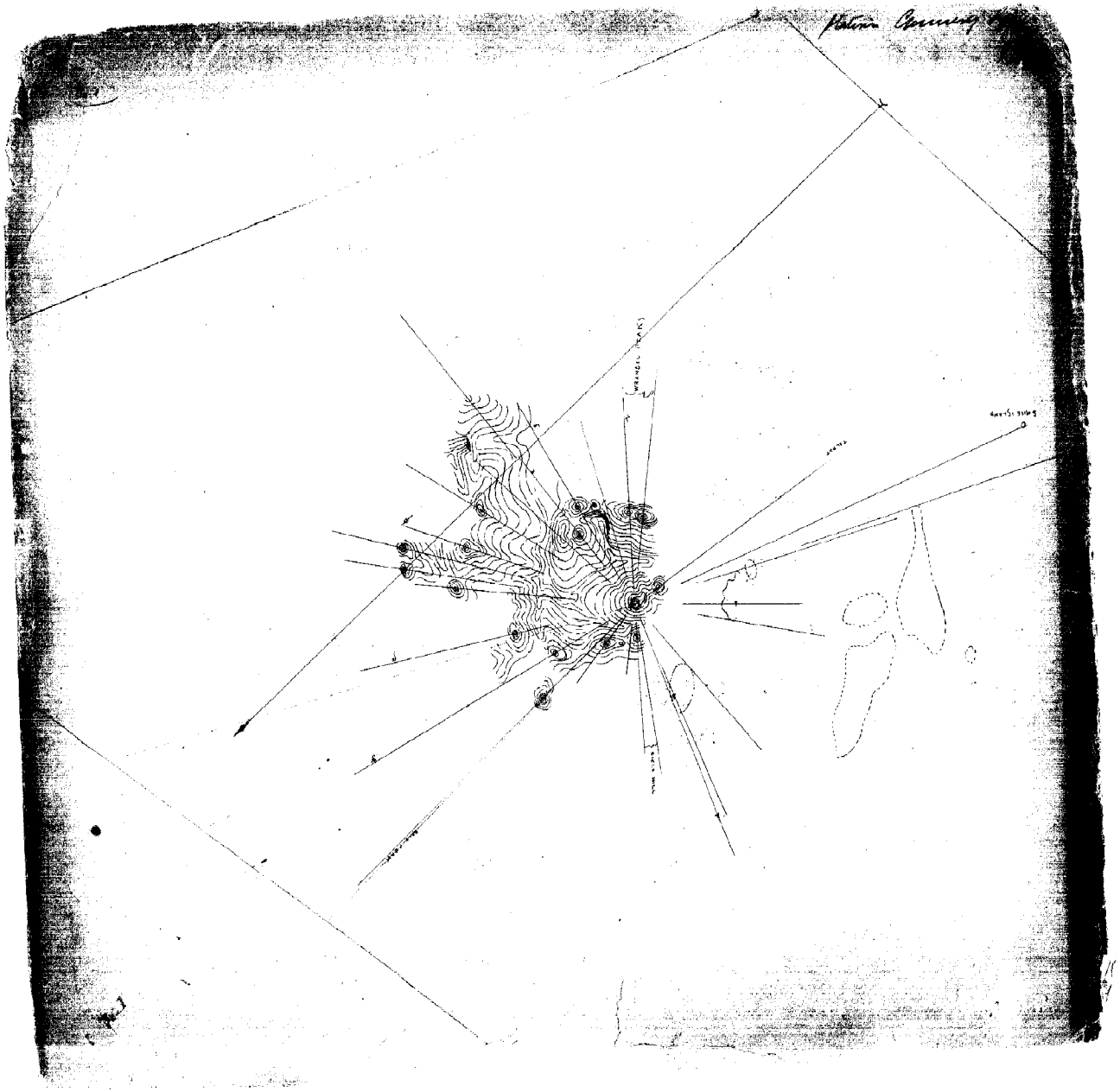
Note: The corrections applied to horiz. angles (observed) are due to excentricity of station. All stations were simultaneously occupied by Capt. A. C. Fallon & myself the former occupying the station proper, by carrying signals were left after the station had been observed upon (at least once) and occupied. The difference between point first observed upon and that marked by the signal assumed sometimes to be 60 metres.

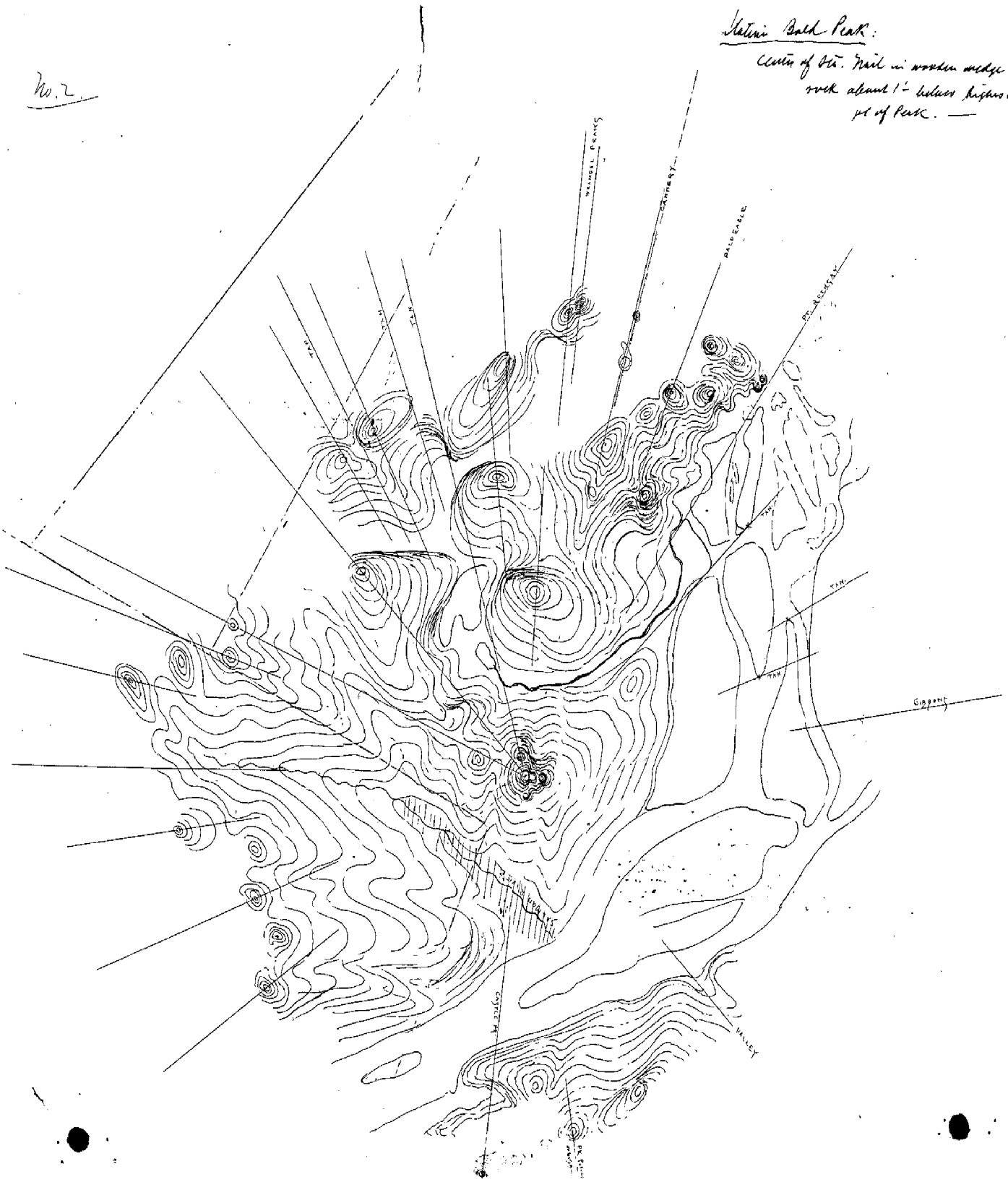
J. A. Flessner



No. 2

Station Bald Peak:

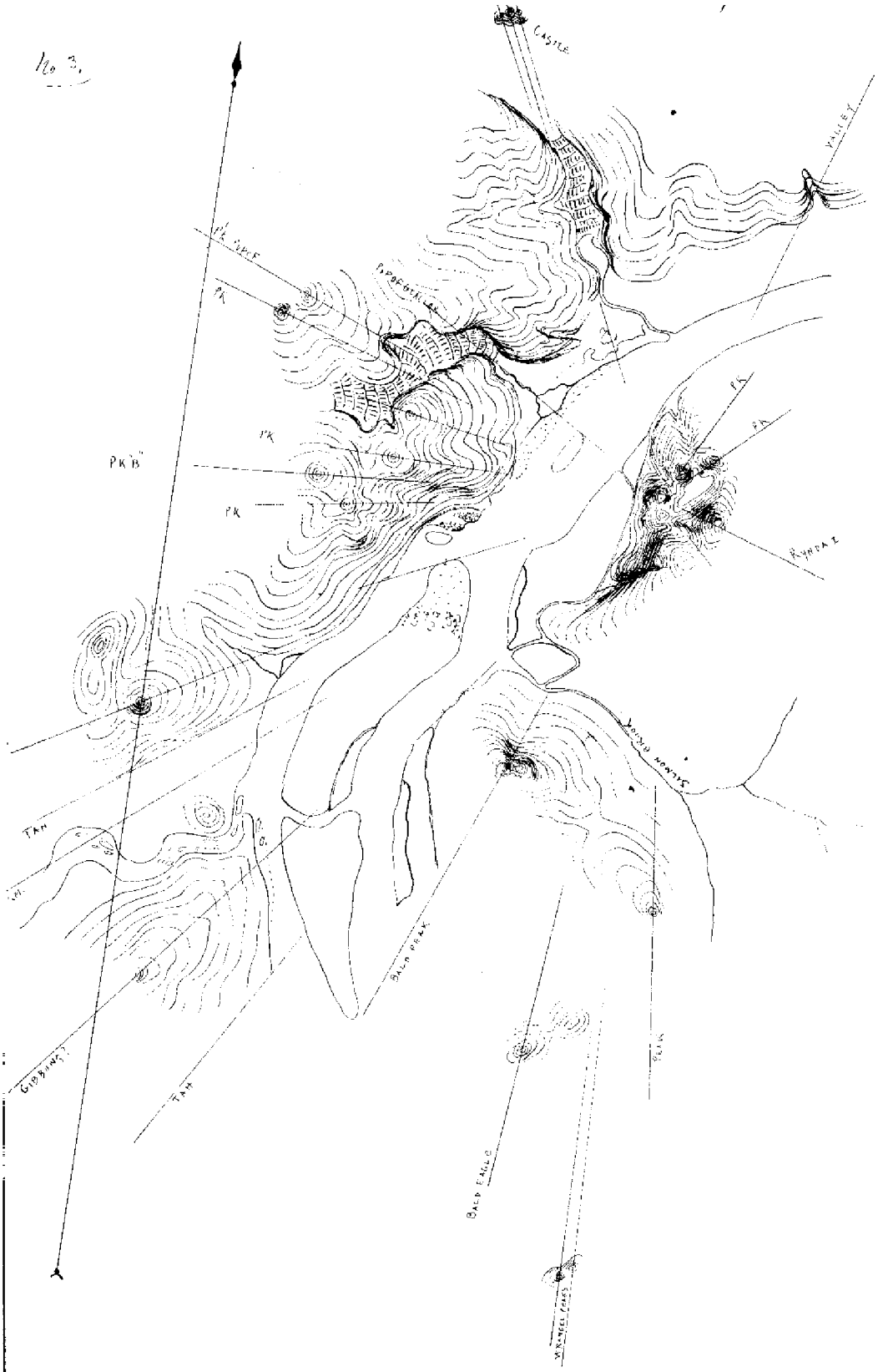
Center of Sta. Nail in wooden wedge in rock about 1' below highest pt of Peak. —



No 3.

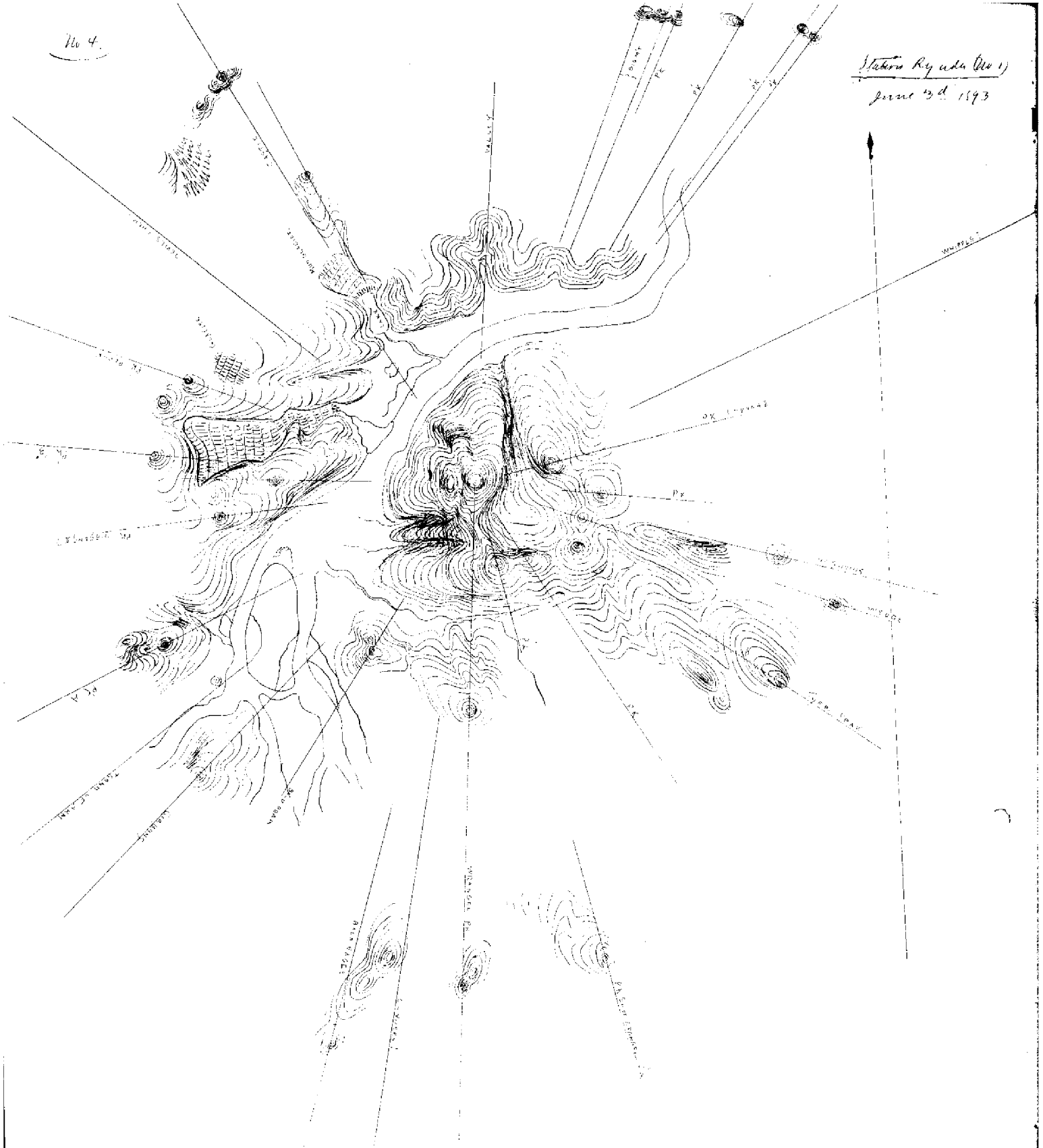
Station "Tipp"

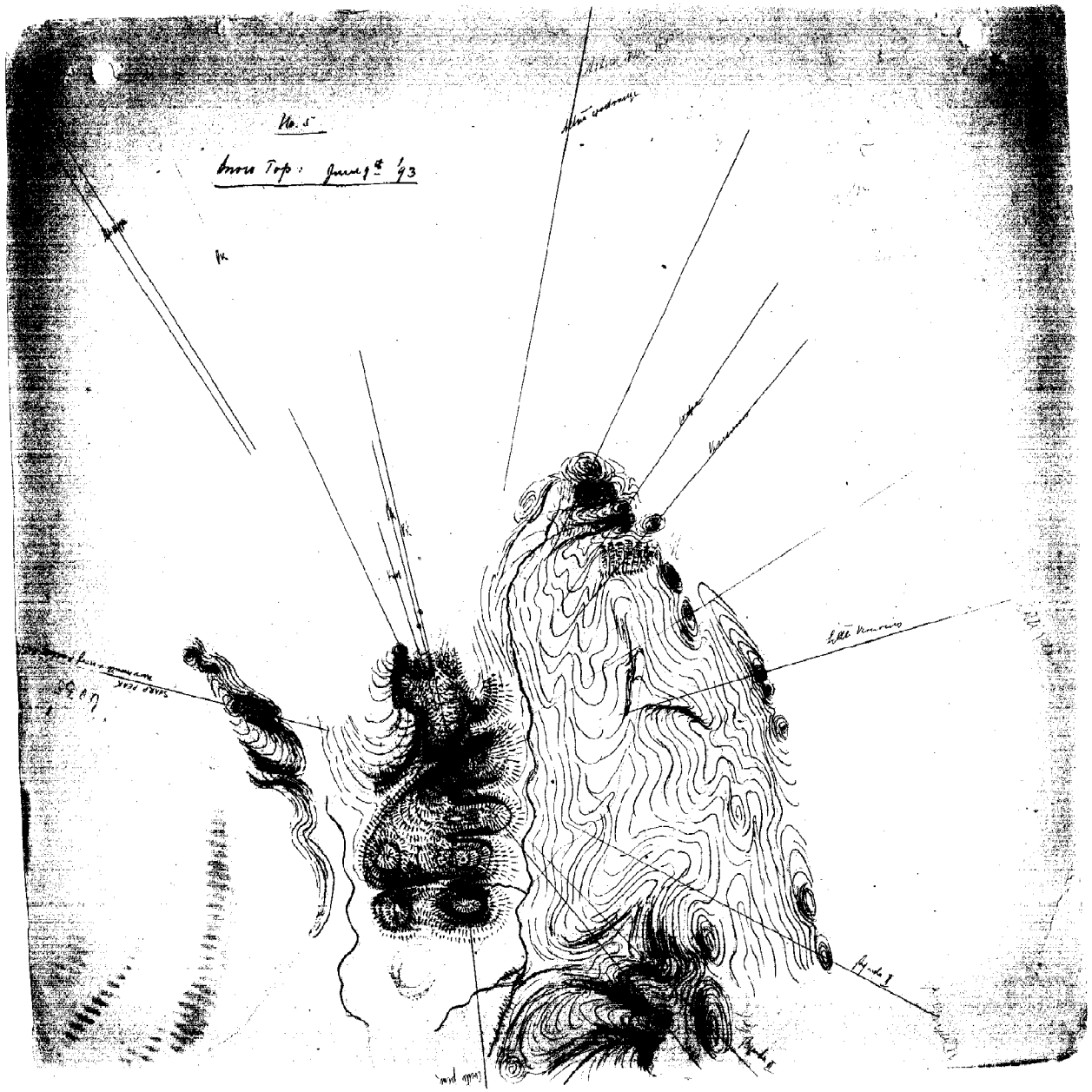
May 27th 1873

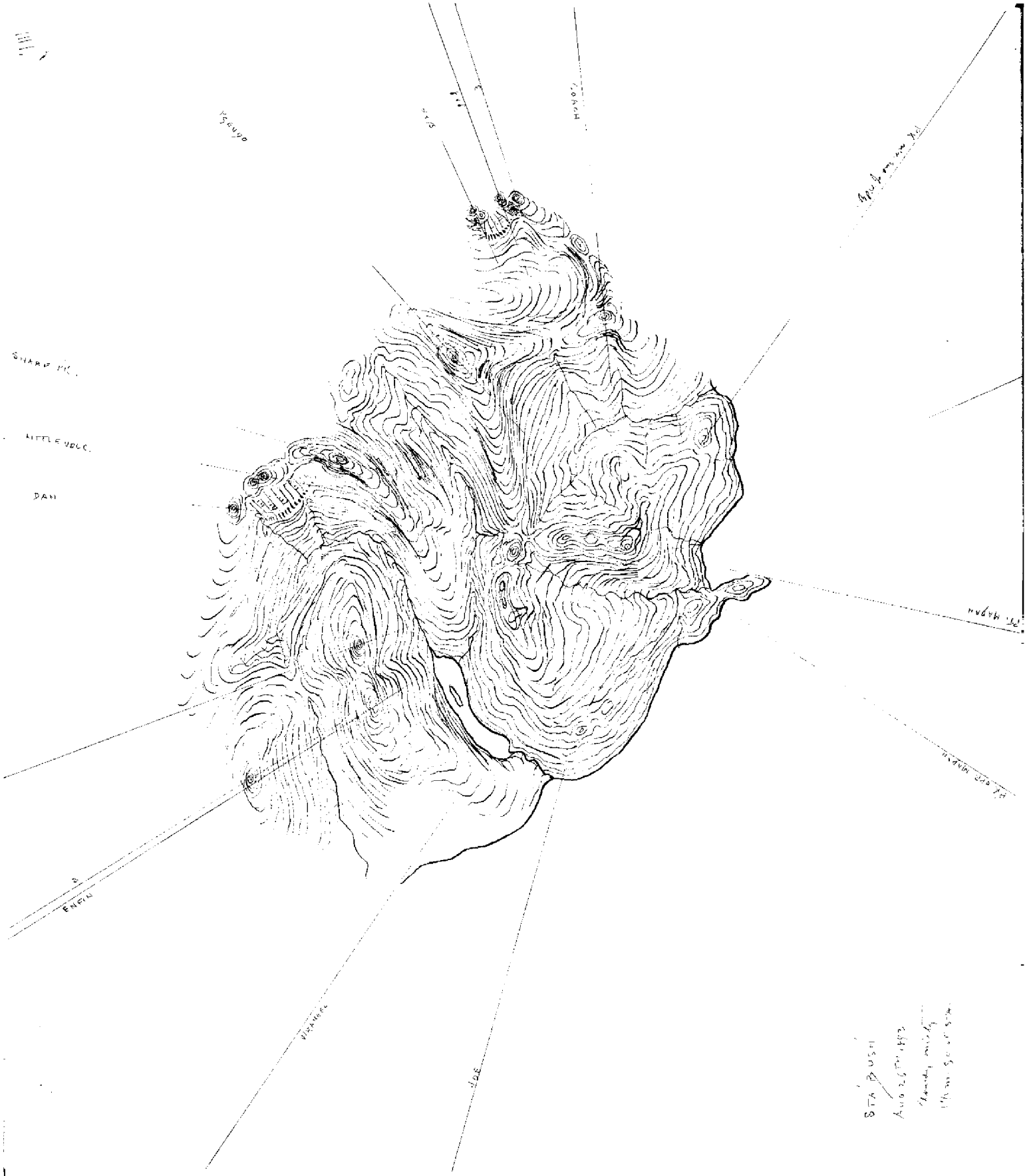


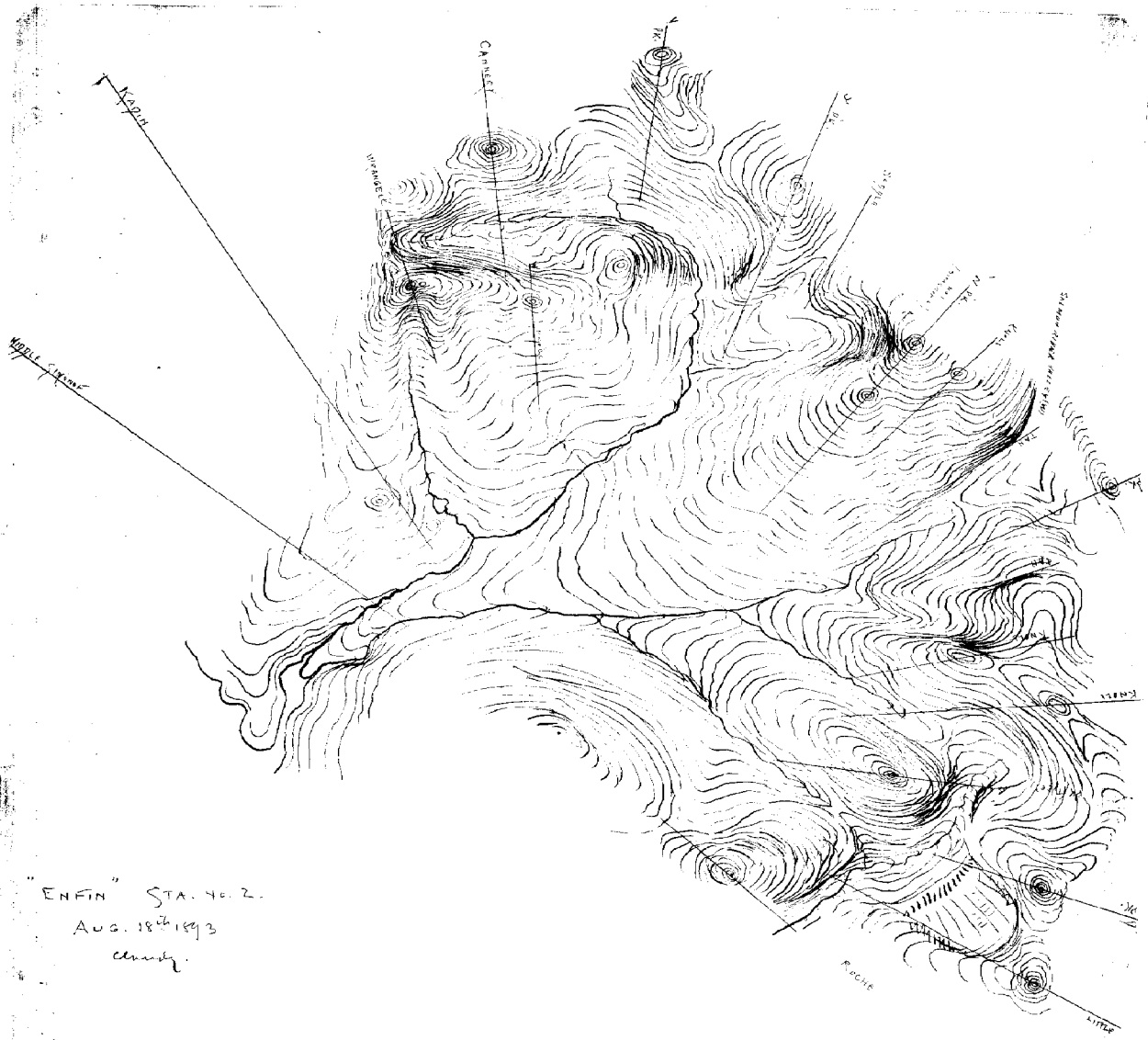
No 4.

Station Ry under (No 1)
June 3d 1893

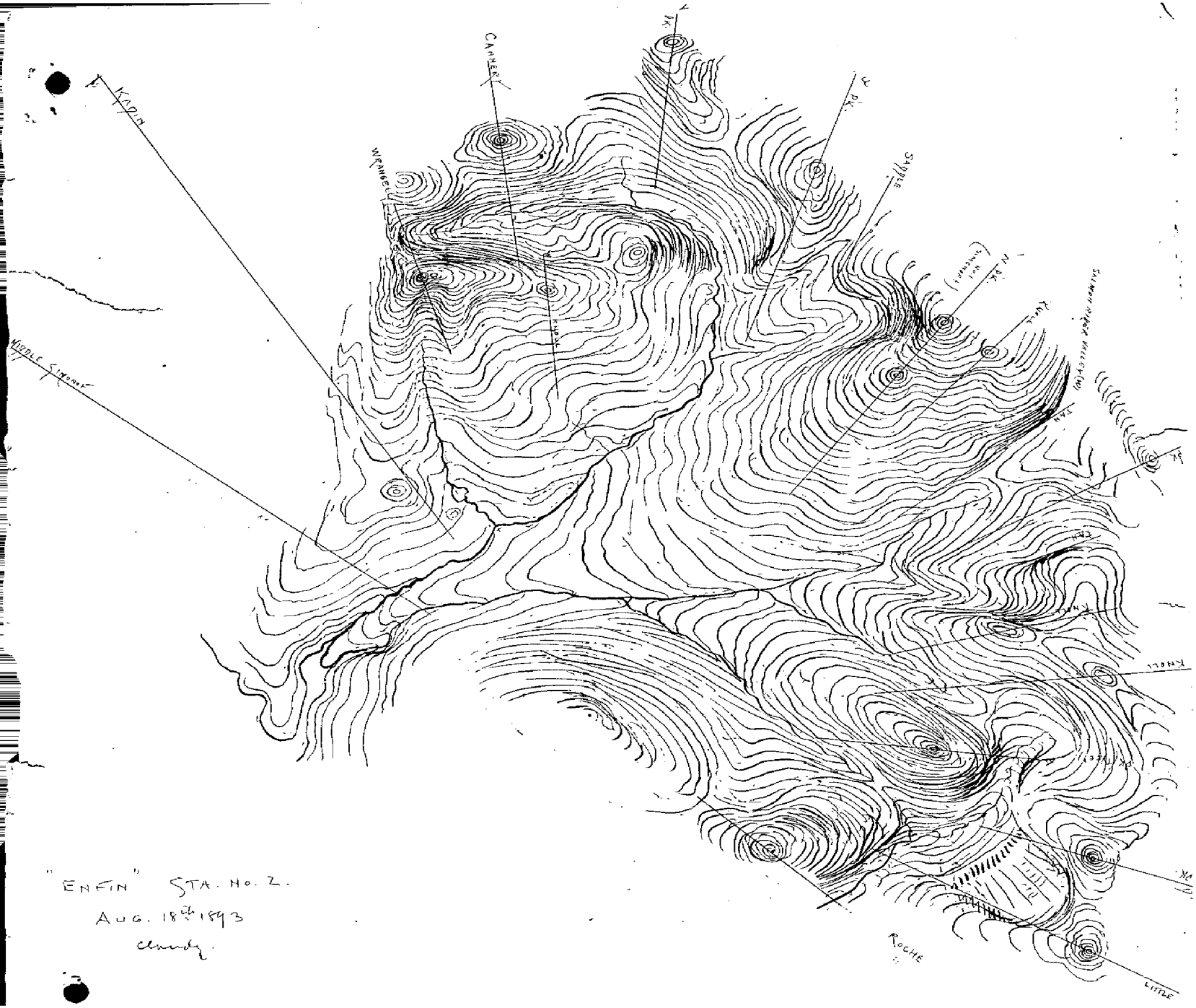



No. 5
Snow Top: June 9th '93
SHARP PEAK


SHARP PK.
LITTLE VOLC.
DAM
ENFIN
STA BUSH



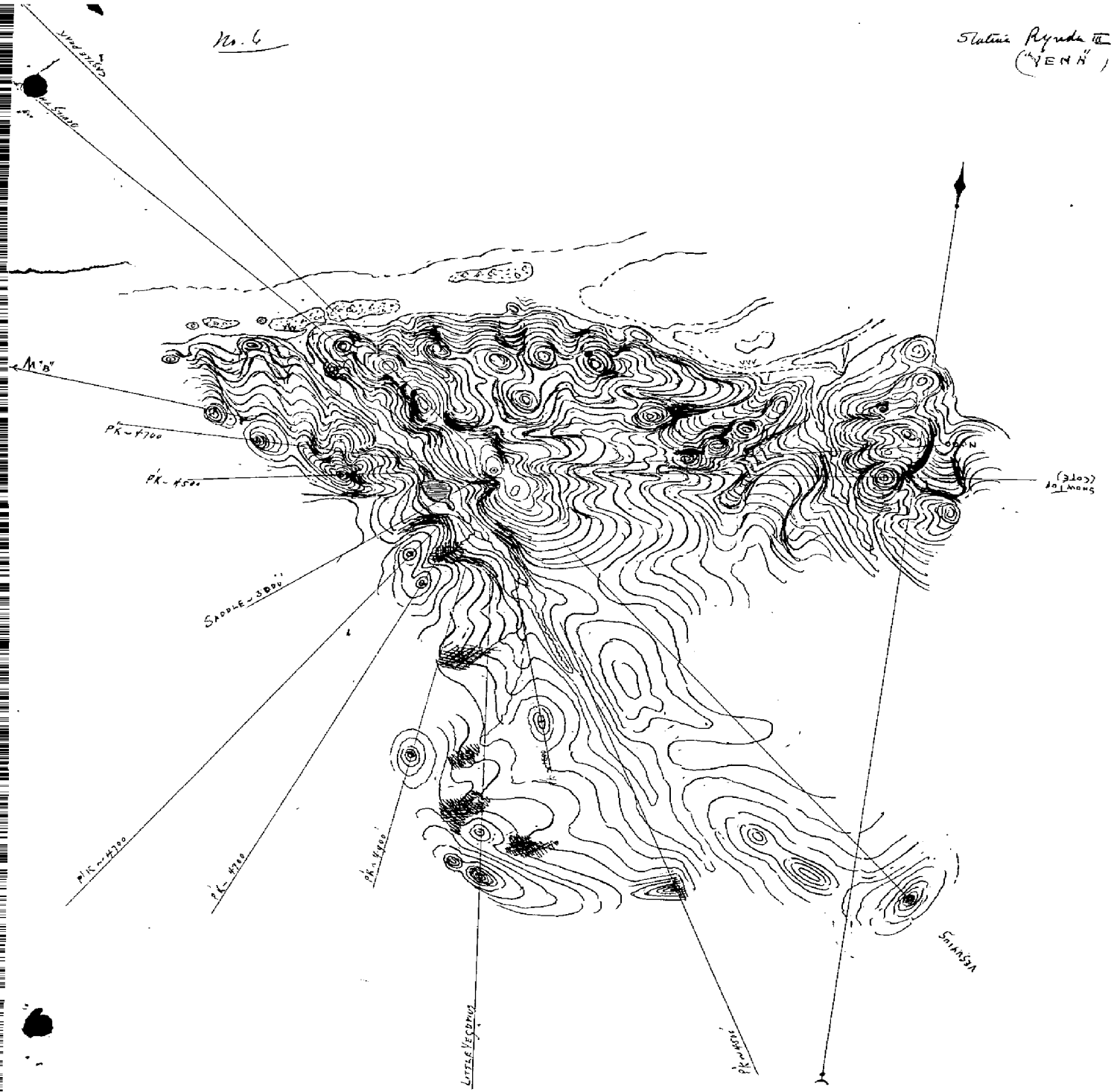
"ENFIN" STA. No. 2.
AUG. 18th 1893

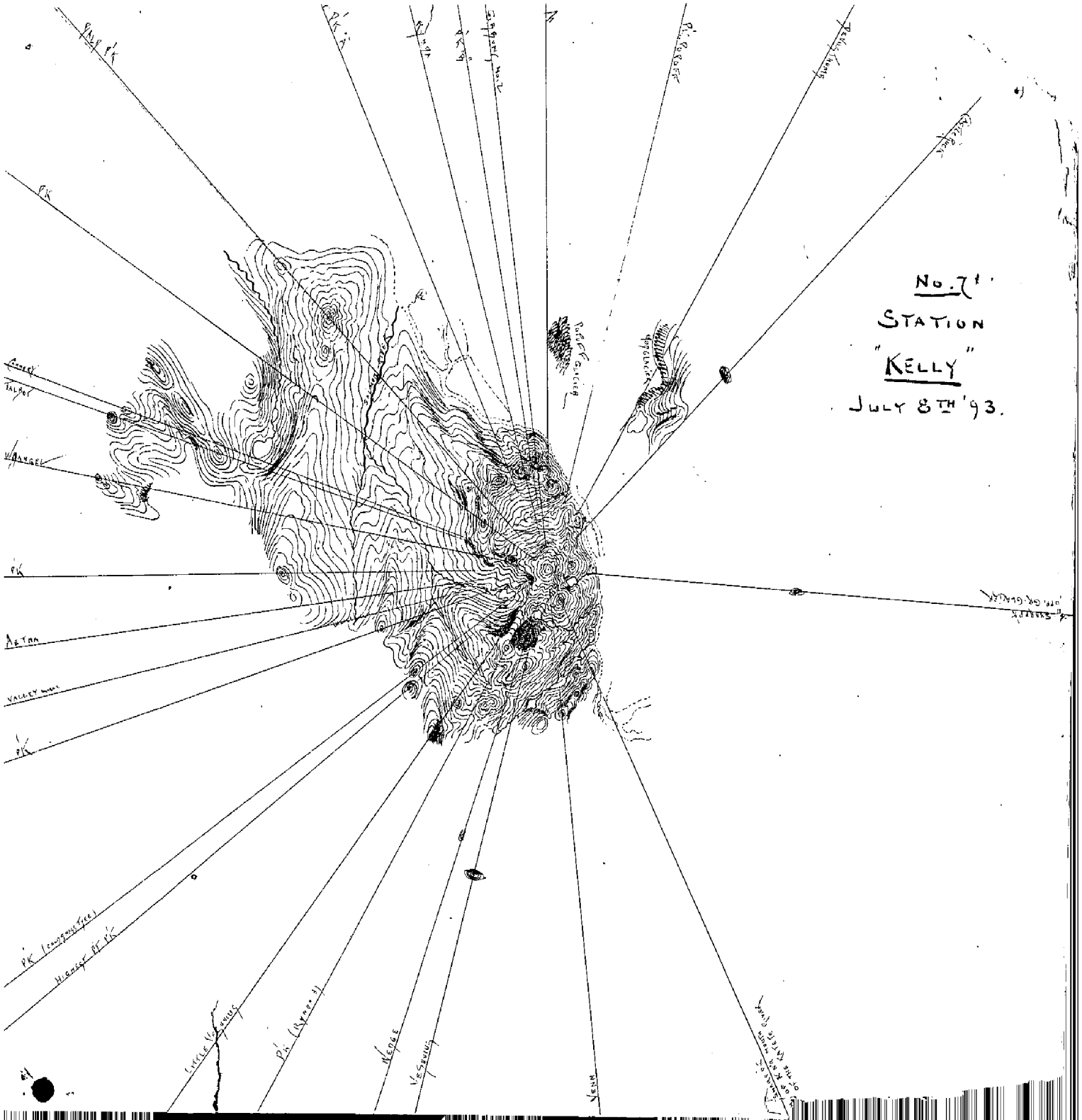


"ENFIN" STA. No. 2.
AUG. 18th 1893
cloudy.

No. 6

Statius Ryuda III
("VENN")




No. 7
STATION
"KELLY"
JULY 8TH '93.
PK
AETNA
VALLEY
PK
PK (Conspicuous Tree)
Highest Pt PK
Wedge
Vesuvius
Venn

ENFIN
AUG 18TH 93
KADIN
CANNERY
PEAK
PEAK
WRANGELL
SIMONOF
JAN
PK.
PK.
PK.
PK.
JOE
PK.
PK.
PK.
ROCHE

STA. No. 3
AUG 18TH 1593
RYNDA
KELLY
IVENNI
WRANGELL
ENFIN
LITTLE VOLCANO
ROCHE
P.K.
P.K.
P.K.
(VAL) SADDLE
P.K.
PICK FALL
CHUTE

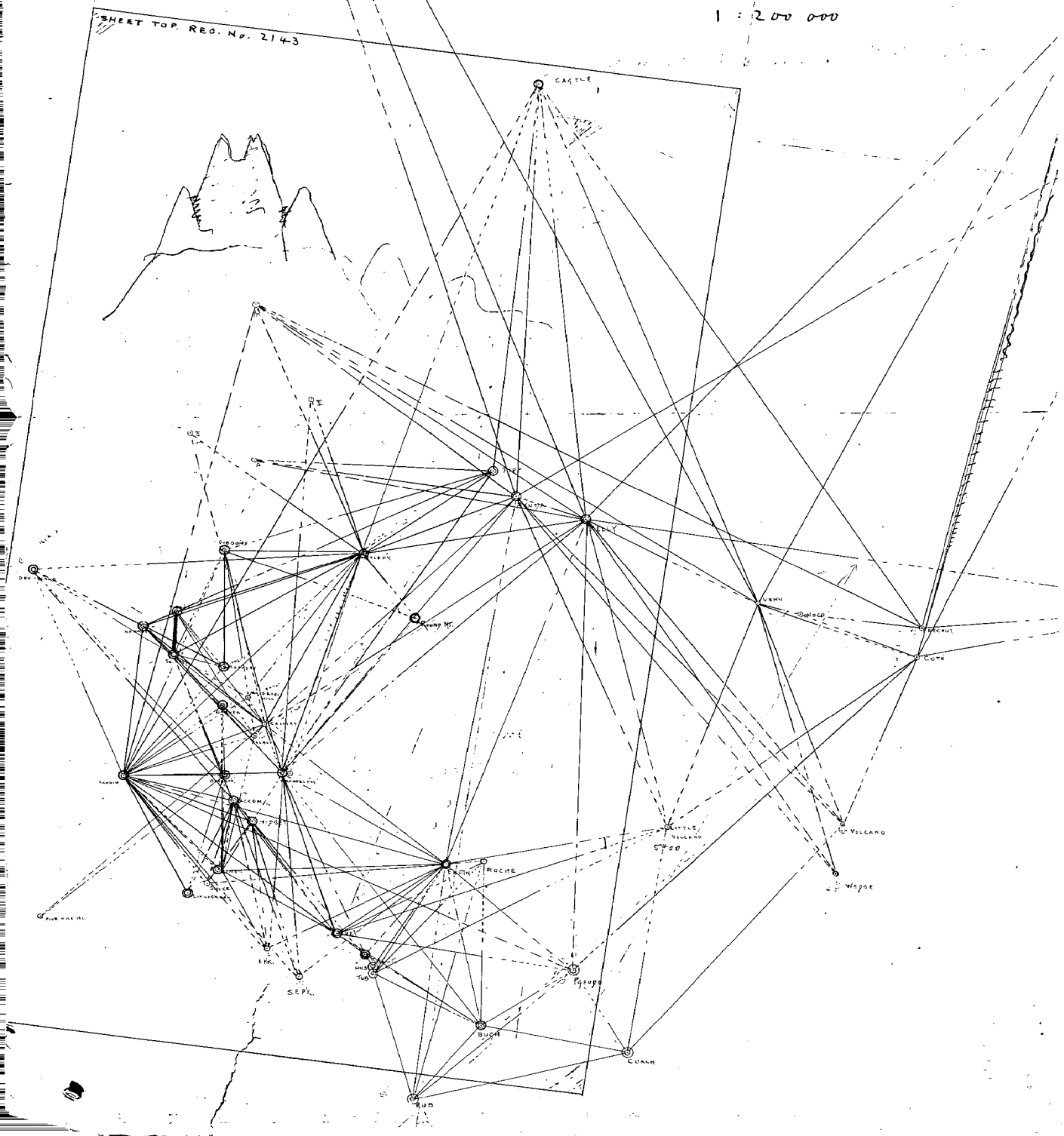
TRIANGULATION SKETCH

OF TOPOGRAPHICAL RECONNAISSANCE

S. E. BOUNDARY SURVEY

ALASKA

1893.

SO OF THE STIKINE RIVER. —

1 : 200 000