CLIMATOLOGICAL DATA FOR OCTOBER, 1912.

DISTRICT NO. 10, GREAT BASIN.

ALFRED H. THIESSEN, District Editor. J. CECIL ALTER, Acting District Editor.

GENERAL SUMMARY.

October weather in the Great Basin was unseasonably cool and stormy, the general inclemency causing delays and losses of a more or less serious nature to nearly all interests, especially in the eastern part of Nevada, and in Utah. The low temperatures were maintained with some uniformity throughout nearly the entire district, only a few stations reporting plus departures from the monthly means. The precipitation excesses occurred principally in western Utah and portions of Nevada, in which regions the number of cloudy days was appreciably greater; but to the westward in central and western Nevada, and in areas of adjacent States in the Great Basin, the precipitation excesses were much less, and the number of clear days greater; conditions thus being much more favorable for farming operations and for all outdoor work.

Owing to the heavy rains, country roads remained in bad condition most of the month in Utah, and the beet and potato fields were so soft as to greatly delay the gathering of these crops. Unthrashed grain and uncut hay stood in the fields at the close of the month in many counties awaiting a period of dry weather suitable for harvesting. However, a very good effect of the cool wet weather was noted in conditions on the dry farms; since these lands are mostly well-drained uplands, the excess of moisture served only to keep the soil in fine condition for plowing, and as farmers were prevented by the weather from working in other fields, the fall dry-farm plowing was probably farther advanced and in better condition at the close of October than for several years. During the second decade, which was the only period of fair weather during the month, a good acreage of dry-land wheat was sown, and this, together with the greater quantity that was sown during the last half of September, was in splendid condition, and the consensus of opinion is that the dry farming prospects have been rendered more propitious by proper weather sequences this autumn than they have been for several years.

Thunderstorms were nowhere numerous or severe, though during the last few days of the month single storms in many places broke previous records for continuous downfalls of rain. A great deal of snow occurred, and while most of this melted as it fell, sufficient remained on the hay and grass and on the fruit trees long enough to cause damage in some places by its weight. The valley floors were bare of snow at the close of the month, though all the mountains in the eastern portion of the Great Basin carried a good layer, and their peaks were white. There were no losses of consequence reported, due to frost, though some fields of alfafa for seed were slightly damaged in central Utah. The number of clear days for the district was 15, partly cloudy days 6, and cloudy days 10.

TEMPERATURE.

The mean temperature for the district was 45°, which is 3° below the normal and more than a degree cooler than October of last year. Utah stations averaged 45.4°, or 3.2° below the normal, and Nevada stations averaged 45.8, or 3.5° below normal. Only two stations reported values above normal; they were in Nevada. The warmest weather was confined to the flatter portions of the district, among the warmest places being Midlake, on the Southern Pacific Railway Co.'s trestle, in the middle of Great Salt Lake. Stations in west-central Utah, and in southern and southwestern Nevada reported the highest averages, and stations in the mountains of Utah and Wyoming the lowest averages. The month began warm over all the district but remained so for only a few days, most of the first and second decades being unusually cool and disagreeable. The beginning of the third decade was again comparatively warm, but most of the last 10 days was also abnormally cool.

PRECIPITATION.

The average precipitation for the district was 2.30 inches, which is 1.49 inches above the normal, or nearly three times the average for October, 1911. Utah stations averaged 2.99 inches, or 2.05 inches above the average, and Nevada stations averaged 1.34 inches, or 0.79 inch above. The greatest excesses occurred in Utah, many stations reporting amounts in excess of 4 inches, which is nearly one-third the normal annual amount in this region. Amounts in western Nevada were so small in some cases as to be below instead of above the normal, though no station reported a totally dry month. The first and third decades were stormy nearly everywhere, the heaviest storms, accompanied by the severest weather, occurring in the last decade. Snowfall during the last decade was reported at a large majority of stations, the amounts ranging above 2 feet at some mountain stations, though the average amount for the district was only 4.5 inches.

USING WEATHER DATA IN ENGINEERING PROBLEMS.

By ALFRED H. THIESSEN, Section Director.

The seer viewing the desert waste yielding subsistence to only a few worthless plants, or standing at night on an eminence contemplating the faintly lighted town having all the possibilities for industrial growth, except cheap light and power, and knowing of a bountiful water supply, which, indeed, he may even hear as it roars down its mountain bed on its way to the sea, conceives the possibility of holding this water in some natural or made pocket in the mountain canyon, and then allowing it, after it has provided power and light to the town, to

TABLE 1.—*Climatological data for October, 1912. District No. 10, Great Basin.*

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Sky.				Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.	Number of rainy days, 0.01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Wyoming.																				
Border	Uinta	6,085	10	38.6	− 2.2	71	1†	14	24	50	2.12	+ 1.04	0.60	9.7	8	11	1	19	w.	S. W. Condron.
Cokeville	do	6,204	2	37.4		73	1	12	24†	49	1.38		0.37	6.0	9	19	1	11	w.	E. J. Tuckett.
Evanston	do	6,860	16	39.2	− 2.6	69	2	18	6	43	2.05	+ 0.86	0.51	3.0	11	14	6	11	sw.	Frank Tucker.
Idaho.																				
Geneva	Bear Lake	6,171	4								1.43		0.70	4.8	7	19	1	11		F. W. Boehme.
Grace	Bannock	5,400	5	43.8		80	1	12	21	47				T.		13	1	17	s.	Wm. F. Courtney.
Paris	Bear Lake	5,946	17	39.5[d]	− 4.8	69[d]	11	15[d]	22	48[d]	2.85	+ 1.81	0.60	5.0	7	16	8	7	w.	John Norton.
Weston	Oneida	4,460	14	43.9	− 2.6	75	1	16	21	42	3.10	+ 1.77	1.12	0	8	17	0	14	n.	Wm. T. Chatterton.
Utah.																				
Alpine	Utah	4,900	13								4.61	+3.13	1.39		8	18	3	10		T. F. Carlisle.
Beaver	Beaver	6,000	8	41.4[a]		73	1	13	31	48	2.59		0.76		6	7	15	9	s.	M. J. Shelton.
Black Rock	Millard	4,872	8	45.8		75	1†	18	21	46	3.14		0.88		6	12	8	11		W. D. Livingston.
Burrville	Sevier	6,800	1	41.1		71	3	16	21	49	2.48		1.35		5					F. R. Curtis.
Castle Rock	Summit	6,244	7								2.41		0.50	9.0	11	14	5	12		David Moore.
Cedar City	Iron	5,750	7																	Parley Dalley.
Center	Tooele	4,250		45.9		82	1	15	21	52	2.68		0.86		9	15	7	9	n.	L. C. Peterson.
Clarkston	Cache	5,930									3.20		1.55		5	21	0	10		W. J. Griffith.
Corinne	Boxelder	4,240	42	46.8	− 3.5	77	1	21	21†	44	3.12	+ 2.10			4	14	2	15		A. C. Murphy.
Deseret	Millard	4,541	17	47.0	− 2.3	76	1	20	21	42	2.07	+ 1.51	0.61		6	12	5	14	s.	S. W. Western.
Elberta	Utah			47.7		77	1	26	21	38	3.07		0.80	3.0	10	16	5	10	s.	D. C. Walkey.
Enterprise	Washington	5,750	6																	John Day.
Erekson	Tooele	4,850									3.30		1.50		7					N. W. Erekson.
Farmington	Davis	4,267	11	46.8	− 3.4	77	2	26	23	36	1.60	+ 0.21	0.40		9	19	6	6	nw.	Charles Boylin.
Fillmore	Millard	5,100	20	49.6	− 3.2	83	1	23	21	40	3.54	+ 2.40	1.13		6					J. J. Starley.
Garrison	do	4,850	9																	E. M. Smith.
Government Creek	Tooele	5,277	11	45.8	− 3.7	77	1	20	21	41	2.63	+ 1.83	0.72	6.0	9	13	3	15	n.	Walter James.
Granger	Salt Lake	4,560		49.2[d]		78	1†	28	23†	37	2.68		0.75		8					Geo. E. Greene.
Grantsville	Tooele	4,220	1																	J. C. Woodmansee.
Grouse Creek	Boxelder	5,148	4								3.01		0.84	0.8	8	15	4	12	sw.	Phillip Paskett.
Heber	Wasatch	5,593	19	43.8	− 1.5	78	1	20	12†	56	4.00	+ 2.80	1.20		11	16	4	11	s.	John Crook.
Henefer	Summit	5,301	12	44.0	− 1.2	77	3	18	14†	51	2.38	+ 1.24	0.60	2.0	11	13	5	13	n.	William Brewer.
Hooper	Weber	4,436	1								1.90				4					T. M. Jones, jr.
Ibapah (near)	Tooele	7,500	8																	J. S. Lawton.
Ibex	Millard	5,250	1																	John J. Watson.
Iosepa	Tooele	4,356	1	48.6		80	26	19	21	41	3.32		1.04		7	17	1	13	n.	Geo. K. Hubbell.
Joy	Juab	5,000																		A. M. Laird.
Junction	Piute	6,000									2.66		1.51		6	13	16	2		Joseph Jensen.
Kanosh	Millard	5,250	2								2.84		0.97		8					Geo. Crane.
Kelton	Boxelder	4,230	32	42.8	− 4.9	75	2	20	30†	42	2.52	+ 2.05	0.77		6	10	11	10	sw-ne.	F. W. Klock.
Lemay	do	4,221	1	46.4		70	2	25	23	24	0.60		0.60		1	18	10	3		Agent S. P. Co.
Levan	Juab	5,010	22	45.4	− 2.1	76	1	23	21	40	3.37	+ 2.20	1.06	8.5	9	15	3	13	sw.	William Brown.
Logan	Cache	4,507	21	45.0	− 4.8	75	1	25	21	38	3.04	+ 1.74	1.14		10					Utah Experiment Station.
Low	Tooele	4,602		51.4		82	1	24	20	44	1.95		0.80		8	13	0	18	s.	Agent W. P. Ry. Co.
Lucin	Boxelder	4,504	5																	R. G. Crocker.
Lund	Iron	5,086	3																	Job F. Hall.
Manti	Sanpete	5,575	17	46.7	− 1.0	76	7	23	21†	49	3.05	+ 2.17	1.18		10	13	0	18		J. M. Anderson.
Maple Creek	Utah	4,850									4.63		1.01		11	14	5	12		Lewis W. Gillilan.
Marion	Summit	6,400	7								3.54		1.03	15.0	11	10	5	16	nw.	Jas. Woolstenhulme.
Marysvale	Piute	6,076	12																	John W. Henry.
Meadowville	Rich	6,200	11	41.2	− 2.3	70	1†	18	21	36	2.40	+ 1.08	0.60	5.0	7	15	2	14	w	J. S. Moffat.
Midlake	Boxelder	4,235	1	50.4		69	1	38	21†	15	2.10		0.70		8	17	1	13	e.	Agent S. P. Co.
Midvale	Salt Lake	4,365		48.2		81	1	20	20†	43	2.79		1.00		10	12	8	11	s.	M. J. Joy.
Milford	Beaver	4,962	4																	Agent Salt Lake Route.
Mills	Juab	4,911									2.44		0.90		8					Geo. McCune.
Millville	Cache	4,848	17								2.63	+ 1.08	1.26		8	10	14	7	s.	Fred Yeates.
Minersville	Beaver	5,070	8								3.53		1.75	2.0	8	12	11	8	sw.	Fred. R. Pryor.
Modena	Iron	5,479	11	44.3	− 5.8	70	17	24	31	39	3.17	+ 2.35	1.34	8.5	8	16	6	9	w.	U. S. Weather Bureau.
Morgan	Morgan	5,068	7	46.0		75	3	20	22	49	2.83		0.60		6					E. O. Kingston.
Moroni	Sanpete	5,519	4	45.9[d]		76	1†	22		39	3.45		1.31	4.5	8	13	6	12	sw.	B. F. Eliason.
Mosida	Utah	4,510																		R. P. Curtis.
Nephi (near)	Juab	5,119	7																	S. Boswell.
Newcastle	Iron	5,150	1								3.80		1.00		7					T. W. Jones.
Oak City	Millard	4,900	5	46.7		79	1	22	21†	37	4.14		1.14	7.0	10	10	10	11		Peter Nielson.
Ogden	Weber	4,310	41								2.12	+ 0.81	1.10		5	6	14	11	s.	W. H. Chevers.
Pangultch	Garfield	6,560		41.0		69	18	18	13†	47	4.37				6	13	3	15		Jonn N. Henrie.
Park City	Summit	7,800	7	40.6		69	1	10	28	50	1.37		1.10		6	0	17	14		Gertrude Evans.
Park Valley	Boxelder	5,200	1								3.41		1.30		9	15	7	9	se.	A. O. Evans.
Parowan	Iron	5,970	21	46.8	− 2.3	72	18†	25	21	41	4.01	+ 3.15	1.58	3.0	9					Alex. Matheson.
Payson	Utah	4,637	8								4.19		1.32	5.5	10	12	9	10	ne.	D. L. Coombs.
Pelican Point	do	4,600	1								3.66		0.90		9	14	8	9		B. M. Mendenhall.
Pine Cliff Ranch	Summit	8,250	1	42.0		68	5	18	29	40	2.00		0.53		6					J. E. Leavitt.
Pinto	Washington	5,907	14	41.0[m]	− 3.9	68[m]	18	20	20†	43[m]	5.08	+ 3.73	2.25		6	12[e]	0[e]	16[e]	s.	J. H. Harrison.
Plentiful	Tooele	4,262									2.60		1.00		7					C. L. Drumm.
Promontory	Boxelder	4,913	33								2.25	+ 1.69	1.00		3					F. C. Houghton.
Provo	Utah	4,532	23	45.8	− 3.5	82	1	22	21	47	4.75	+ 3.77	0.85	2.5	9	13	14	4	n.	James A. Oliver.
Randolph	Rich	6,442	10																	Wm. Rex.
Revier	Salt Lake	5,096	1								2.33		0.50		9					E. L. Terry.
Richfield	Sevier	5,350	18																	Joseph J. Jensen.
Richmond	Cache	4,529									3.82		1.58	T.	12	8	14	9		J. R. Thompson.
Saltair	Salt Lake	4,220	8	48.4[a]		69	4†	32	24†	27	2.34		0.63		9					E. J. Bench.
Salt Lake City	do	4,360	38	49.8	− 2.4	81	17	30	21	34	2.97	+ 1.57	0.74	5.7	10	13	4	14	se.	U. S. Weather Bureau
Scipio	Millard	5,260	17	46.4	− 1.3	77	1	17	21	50	3.37	+ 2.11	1.15	T.	8	13	3	15	sw.	Thos. Memmott.
Showell	Boxelder	4,650		42.5		79	3	12	20	50	3.15		0.82		9	14	11	6		Richard Ilgner.
Silver City	Juab	6,127	2								3.06		0.73		9	10	7	14	sw.	J. L. Stark.
Spanish Fork	Utah	4,585	2																	U. S. Reclamation Service
Strawberry Tunnel (West).	do	7,650	6	40.8[a]		67	15	12	29	35	4.67		1.35	25.0	11	13	6	12		Do.
Thistle	do	5,075	18	43.8	− 4.9	78	3	15	21	50	2.73	+ 2.15	1.20		7	12	8	11	nw.	John Thorgierson.
Tooele	Tooele	4,900	16	47.0	− 3.5	77	1	27	21	39	4.43	+ 3.12	1.80		14	10	4	17	s.	E. A. Bonelli.
Utah Lake Pumping Station.	Utah	4,500	7																	W. A. Knight.

TABLE 1.—*Climatological data for October, 1912. District No. 10*—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, years.	Temperature, in degrees Fahrenheit.							Precipitation, in inches.				Number of rainy days, 0.01 inch or more.	Sky.			Prevailing wind direction.	Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall, unmelted.		Number of clear days.	Number of partly cloudy days.	Number of cloudy days.		
Utah—Continued.																				
Vernon	Tooele	5,500									3.48		0.87	2.8	9	13	10	8	sw.	Glynn Bennion.
Wendover	do	4,237	1	54.0		75	3	30	31	34	0.28		0.23		2	7	22	2	nw.	J. S. Cooper.
Whisky Creek	Millard	4,850	1								2.40		0.70	6.0	4					Geo. Stevens.
Winder	Garfield	8,000																		C. H. Mangum.
Woodruff	Rich	6,500	10	34.7	− 5.9	69	3	5	21	55	2.19	+ 1.14	0.60		7	15[b]	8[b]	6[b]		A. L. Eastman.
Oregon.																				
Burns	Harney	4,157	21	43.9	− 1.7	82	2	12	29	59	0.16	− 0.41	0.14	T.	2	13	8	10		J. C. Welcome, jr.
Cliff	Lake	4,300	5	38.2		72	3†	0	7	62	0.26		0.12	0	3	7	11	13	nw.	John C. Green.
Paisley	do	4,500	9																	E. C. Woodward.
Silver Lake	do	4,700	15	41.1		78	1	9	30	53	0.22		0.22	0	1	18	12	1	n.	G. W. Marvin.
California.																				
Tahoe	Placer	6,240	2	41.9		67	3	17	28	39	0.65		0.50		2	13	4	14	w.	R. M. Watson.
Truckee	Nevada	5,819	41	39.7	− 5.4	70	3	14	10	45	0.20	− 0.86	0.20	2.0	1	16	9	6	se.	Southern Pacific Co.
Nevada.																				
Austin	Lander	6,594	23	45.4[a]		78[a]	1	17[a]	31	44[a]	1.60		0.70	12.5	4				n.	F. O. Booe.
Battle Mountain	do	4,843	41	47.6	− 2.0	88	1†	16	30	58	1.11	+ 0.63	0.45	3.0	5	22	4	5	w.	Southern Pacific Co.
Beowawe	Eureka	4,905	41																	Do.
Carlin	Elko	5,232	41	45.2	+ 0.4	80	26	13	20†	57	0.84	+ 0.46	0.35	2.0	4	19	3	9	nw.	Do.
Carson Dam	Churchill	4,032	5	48.2		75	3	19	31	39	0.51		0.29	T.	3	18	5	8	w.	U. S. Reclamation Service.
Cherry Creek	White Pine	6,450	4	43.6		71	3	17	21	39	2.52		0.74	5.8	11	13	7	11	w.	J. H. Leishman.
Clover Valley	Elko	6,000	11																	I. F. Wiseman.
Columbia	Esmeralda	5,750	5	47.0		74	17	19	31	36	0.91		0.70	9.0	4	23	3	5	nw.	A. Booth.
Dry Farm	Elko	5,600	0	44.2		71	3	18	31	41	3.00		1.75	21.7	8					Walfrid Sohlman.
Elko	do	5,432	41	42.8	− 0.8	74	3	12	21	47	2.24	+ 1.76	1.14	2.0	12	16	4	11	w	E. J. Clark.
Eureka	Eureka	6,500	9	43.0		71	3	10	31	39	4.40		2.82	29.0	7	12	6	13	s.	Clay Simms.
Fallon	Churchill	3,965	7	47.0		78	3	19	31	44	1.10		0.73	1.0	4	18	5	8	ne.	U. S. Experiment Station.
Fernley	Lyon	4,200	39	47.6	− 2.6	78	16	15	31	48	0.06	− 0.23	0.06	0	2	13	11	7	w.	Mrs. G. A. Steele.
Gardnerville	Douglas	4,830	12	45.0[c]	− 6.2	75[c]	17	16[c]	31	46[c]									n.	Forest Service.
Gerlach	Washoe		0	49.8		80	6	22	9	50	0.20		0.15	T.	2	18	0	13	ne.	Western Pacific Co.
Geyser	Lincoln		8	38.0		80	1	0	30	70	0.24		0.19		4	13	9	9	s.	Mrs. J. F. Wamboit.
Glenbrook	Douglas	6,420	3	47.2		72	2	23	29	40	0.25		0.10	0	4				sw.	C. C. Henningsen.
Golconda	Humboldt	4,697	33	44.8	− 5.8	78	1	16	21	44	0.79	+ 0.31	0.26		6	16	1	4	w.	Southern Pacific Co.
Halleck	Elko	5,631	19	48.1	+ 4.9	84	23	17	22	63	2.02	+ 1.49	2.00	4.2	2	19	4	8		Do.
Hawthorne	Mineral	4,569	18	50.8	− 3.0	77	22	25	31	42	1.19	+ 0.97	0.50	0	6	15	12	4	sw.	G. B. Stannard.
Jean	Clark	2,074	4	51.6[d]		76[d]	13	28[d]	9	42[d]	0.30		0.20	0	2	20	3	5		Salt Lake Route.
Lahontan	Churchill	4,200	0	48.6		79	3	24	30	39	0.46		0.19	0	4	18	6	7	w.	U. S. Reclamation Service.
Lida	Esmeralda	6,037	0	46.0		70	1†	20	31	35	1.95		1.64	0	3	21	1	9	se.	L. F. Detwiler.
Lewers Ranch	Washoe	5,500	24																	Ross Lewers.
Lovelocks	Humboldt	3,977	18																	A. P. Tilford.
McDermit	do	4,700	23																	Scott Sterling.
McGill	White Pine	6,338	21	41.4	− 2.0	79	15	10	31	56	1.38	+ 0.72	0.45	1.9	9	16	4	11	s.	R. E. Middagh.
Millett	Nye		4	43.4		76	17	10	31	53	1.29		1.18	6.0	2	19	4	8	s.	Fred J. Jones.
Mina	Mineral	4,600	5	53.4		75	15†	22	1	28	1.00			2.0	4	18	8	5		Southern Pacific Co.
Oasis Ranch	Esmeralda	5,106	0	46.1		72	1	16	31	42	0.66		0.38	1.0	3	22	4	5	nw.	A. S. Patterson.
Potts	Nye	6,990	19	38.4	− 6.2	66	3	4	31	37	0.93	+ 0.61	0.70	9.5	4	8	8	15	n.	Miss Mamie Potts.
Quinn River Ranch	Humboldt	4,850	10	43.0[c]	− 3.8	82[c]	3	13[c]	24†	58	0.88	+ 0.49	0.27	0	7				sw.	F. M. Payne.
Rebel Creek	do		0								1.29		0.50	1.5	7	17	4	10	sw.	E. J. Hyatt.
Reno	Washoe	4,532	41	47.3	− 2.4	77	3	22	31	44	0.04	− 0.37	0.03	T.	2	14	14	3	w.	U. S. Weather Bureau.
Soda Lake	Churchill	4,534	5	47.0		74	16†	20	24†	50	0.61		0.27	0	4	8	15	8	n.	U. S. Reclamation Service.
Tecoma	Elko	4,812	34	42.5	− 3.3	78	2	2	21	60	2.05	+ 1.64	0.95	T.	7	13	6	12		Southern Pacific Co.
Tonopah	Nye	6,090	7	46.8		68	3	24	30	26	1.03		1.00	10.0	4	15	11	5	se.	U. S. Weather Bureau.
Wells	Elko	5,631	40					17	15†		2.85	+ 2.26	1.95	8.0	4	20	0	11		Southern Pacific Co.
Winnemucca	Humboldt	4,432	33	44.4	− 4.2	76	3	18	21	47	1.35	+ 0.83	0.52	0.5	7	16	5	10	ne.	U. S. Weather Bureau.

[a], [b], [c], etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.
** Temperature extremes are from observed readings of the dry bulb; means are computed from observed readings.
† Also on other dates.
T. Prepicitation is less than 0.01 inch rain or melted snow.

TABLE 2.—*Daily precipitation for October, 1912. District No. 10, Great Basin.*

Stations.	Watershed.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Wyoming.																																	
Border	Bear					.47	.40			.60																T.		.40	.05	.06	.15	.16	2.12
Cokeville	do				.16	.10	.20	T.		.24										T.							T.	.37	.06	.05	.06	.06	1.38
Evanston	do	T.			.16	.51				.04	.11										.14						.18	.51	.11	.03	.20	.06	2.05
Idaho.																																	
Geneva	Bear				.26	.70				.18																		.17	.04		.03	.05	1.43
Grace	do																																
Paris	do		.15	.60	.45	.50	.40																				.50	.25					2.85
Weston	do				.12	1.12	.57			.58																	.10	.40	.15		.06		3.10
Utah.																																	
Alpine	G. S. Lake					.60	.14			.60											.25							1.39	.98		.45		4.61
Beaver	Sevier Lake				T.	.50				.37																	T.	.76	.60		.10	.26	2.59
Black Rock	do	T.	.37		.40	.26				.75																		.88			.48		3.14
Burrville	do				.13	.22				.44																	.34	1.35					2.48
Castle Rock	G. S. Lake				.10	.28	.05			.23	.20									.15							.35	.50	.30	.20	.05		2.41
Cedar City	Desert																																
Center	do	T.			T.	.25				.23	.06										.03						.34	.86	.58	.07	.26		2.68
Clarkston	G. S. Lake					1.55			.45	.10																		.50	.60				3.20
Corinne	do				.62					T.																		*	2.38		.12		3.12
Deseret	Sevier Lake	.10			.27					.45																	.30	.61			.34		2.07
Elberta	G. S. Lake	T.			.35	.30				.45	.06										.20						.20	.58	.12	T.	.80	.01	3.07
Enterprise	do																																
Erekson	Desert									.95									.07								*	*	1.86	*	.42		3.30
Fairfield	G. S. Lake																																
Farmington	do				.28	.07				.03										.02							.07	.28	.40	.05	.40		1.60
Fillmore	Sevier Lake				.81	T.				.61	.10										T.						.02	.87		T.	1.13	T.	3.54
Frisco	Desert																																
Garrison	do																																
Government Creek	do		.10			.12				.63										T.	.10						.02	.41	.47	.06	.72		2.63
Granger	do				.20	.35				.50	.05															.33	.25	.25		T.	.75		2.68
Grantsville	G. S. Lake																																
Grouse Creek	Desert	T.			.84	.68	.27		.12	.11																		.55	.41	.03	T.		3.01
Heber	G. S. Lake				.40	.30	.05			.45	.20									*	.55						.10	1.20	.30		.45		4.00
Henefer	do	T.			.23	.15	T.			.35	.12									.05	.04						.27	.60	.27	T.	.28	.02	2.38
Hooper	do	T.				*	.80																								*	1.10	1.90
Ibapah (near)	Desert																																
Ibex	do																																
International	G. S. Lake																																
Iosepa	Desert					.32	T.			.40																	.10	.50	1.04	.28	.68		3.32
Joy	do																																
Junction	Sevier Lake				.15	.34				.32																	.17	1.51			.17		2.66
Kanosh	do		.10			.14				.56	.18																	.65	.06		.97	.18	2.84
Kelton	G. S. Lake				*	.77	.60	.25																				.15	.60	.15			2.52
Lemay	Desert				T.	.60																											0.60
Levan	Sevier Lake	T.			.12	.22				.66	.13										.02						.11	1.06	.20		.85		3.37
Logan	G. S. Lake				.31	1.14	.01		.43	.01																.20	.28	.34	.01	.31			3.04
Low	do					.22	.11			.10																.01		.50	.80	.14	.07		1.95
Lucin	Desert																																
Lund	do																																
Manti	Sevier Lake	T.			.21	.20				.61	.09										.05						1.18	.12	.08	T.	.46	.05	3.05
Maple Creek	G. S. Lake	T.			.10	.33	.13			.79	.24										.70						.28	.79	.24	T.	1.01	.02	4.63
Marion	do	T.			.34	.04		.03		.56	.33									T.	.65						.07	1.03	.25	T.	.12	.12	3.54
Marysvale	Sevier Lake																																
Meadowville	G. S. Lake					.30	.60			.50										T.				T.				.55	.15		.20	.10	2.40
Midlake	do		T.			.70				.10																	.30	.35	.40	.10	.10	.05	2.10
Midvale	do			.12	.34	.04			.51	.03																.25	.19	.30	.01	1.00			2.79
Milford	Sevier Lake																																
Millville	G. S. Lake				T.	1.26	.02																	.04			.26	.38	.29	.03	.35		2.63
Mills	Sevier Lake	T.			*	.49				.41	.02										T.						.16	.90	.15		.31		2.44
Minersville	do		.16		.37	.25			.04	.52																	.02	1.75		.42			3.53
Modena	Desert	.30		T.	.99	.57	.01			.44	T.																.03	.80		.03			3.17
Morgan	G. S. Lake					.60			.35																		.59	.46	.41		.42		2.83
Moroni	Sevier Lake		T.		.18	.47					.48																.24	1.31	.38	.03	.36	T.	3.45
Mosida	G. S. Lake																																
Mount Nebo	do																																
Nephi (near)	do																																
Newcastle	Desert		.57		.79	.62				.47																	1.00	.10			.25		3.80
Oak City	Sevier Lake	.01				.38				1.14	.18										.01						.45	.80	.07		.43	.67	4.14
Ogden	G. S. Lake																										.63	1.10	.09	.28	.02		2.12
Panguitch	Desert		.42		.47	.81		.20																			*	2.47					4.37
Park City	G. S. Lake																.09		.04					1.10	.06	.02	.06						1.37
Park Valley	Desert				.30	1.30	.14		.15	.19																	.08	.95	.25	.05			3.41
Parowan	do	.15			.21	.35			.22	.55	.10																.35	1.58			.50		4.01
Payson	G. S. Lake	.02			.40	.21				.66	.17										.30						.18	.83	.10		1.32		4.19
Pelican Point	do				.45	.20				.75										.07	.29						.20	.90	.30		.50		3.66
Pine Cliff Ranch	do				.53	.26		.26																			.40	.45	.10				2.00
Pinto	Desert				1.29				.88	.55																		2.25		.02	.09		5.08
Plentiful	G. S. Lake	T.			.24	.15	.04		.34																		.21	1.00	.62				2.60
Promontory	do			.50																							1.00	.75					2.25
Provo	do				.50	.40				.65										T.	.65						.35	.80	.50	.05	.85		4.75
Randolph	do																																
Revier	do				.31	.08	.11			.50											.06						.27	.34	.32			.34	2.33
Richfield	Sevier Lake																																
Richmond	G. S. Lake	.14			.26	1.58			.24	.16														.04		.20	.29	.47	.14	.20	.10		3.82
Saltair	do		.02		.02	.16		.01		.61																	.16	.16	.57		.63		2.34
Salt Lake City	do	.03			.30	.24			.05	.67										T.							.42	.08	.53	.21	.44		2.97
Scipio	Desert	T.			.50	.25				.71	.04										.02						T.	1.15	.34	T.	.36		3.37
Showell	do				.40	.82	.30			.38																	.14	.60	.30	.06	.06		3.15
Silver City	do					.38	.27		.33												.16						.35	.73	.12	.02	.70		3.06
Spanish Fork	G. S. Lake																																
Strawberry Tunnel, west.	do				.40	.35	T.			.45	.19										.45						.22	1.35	.55	.15	.50	.06	4.67
Thistle	do				T.	.55	.10			.45	T.										T.						.20	1.20	.25	T.	.68		2.73
Tooele	do	.12	.02		.20	.03	.01	.08		.62	.25										.03						.55	.31	.31	.10	1.80		4.43
Utah Lake pumping station.	do																																
Vernon	Desert			.75	.32				.60											T.	.30						.13	.87	.25	.06	.20	T.	3.48
Wendover	do				.05																							.23					0.28
Whisky Creek	do									.60															.50				.70		.60		2.40
Winder	Sevier Lake																																
Woodruff	G. S. Lake	.20			.25	.60	.30			.30																		.24	.30				2.19

TABLE 2.—*Daily precipitation for October, 1912. District No. 10*—Continued.

Stations.	Watershed.	Day of month.																															Total.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Oregon.																																	
Ana River	Southeast drainage.																			.05			.20						.02		.01		0.28
Bear Valley	do				T.					.05											T.		.10							.05	.40		0.60
Burns	do																					.02	T.		T.				.14	T.			0.16
Burns Mill	do																						.16	.07									0.23
Christmas Lake	do			T.					T.											T.		T.	.02		T.			.17	.09	.02			0.30
Cliff	do																			.02			.10	.02					.12				0.26
Diamond	do								.05	T.														.13				.07		.30			0.55
Embody	do				T.				.01										T.	.02			.23	.32									0.58
Fort Rock	do			T.	T.															T.		T.	.13	T.	T.	.04			.07	T.			0.24
Paisley	do																																
Seneca	do					.18			.12												.19		.14	T.							.25		0.88
Silver Lake	do																												.22				0.22
Valley Falls	do							T.													.10								.15				0.25
California.																																	
Bijou	Truckee	T.			.14	T.														T.		T.	.08				.03	T.		T.			0.25
Boca	do					T.	T.																	.20									0.20
Bridgeport	East Walker	.30	.19	.30		.30																											1.09
Deer Park	Truckee				T.		T.	.05											*	.10		*	*	*	1.10				.60				1.85
Hobart Mills	do																						.03	.45		.02	.01		*	.16			0.67
Lundy	East Walker	.10			.08																												0.18
Markleeville	East Carson				.20	.16			T.						.05	T.					T.				T.	.07	.03		.02		T.		0.53
Shields Ranch	East Walker	.77			.13	.28				.04																				T.			1.22
Silver Creek	East Carson				.30	.21			.02						.04	.02									.03	.04	.02		.04	T.	.02		0.74
Tahoe	Truckee				T.		T.																	.50		T.			.15	T.			0.65
Tallac	do				T.	T.																	.25			T.	T.			T.			0.25
Truckee	do					T.	T.																	.20									0.20
Woodfords	West Carson			T.	.08																	.11											0.19
Nevada.																																	
Arthur	Humboldt	.20		.50	1.00		.20		.50	.10																	*	.40		.50			3.40
Austin	Reese	.35			.70																							.40		.15			1.60
Battle Mountain	Humboldt				.20	.45	.18			.10																		.18		T.			1.11
Beowawe	do	.31			.50	.23	.12			.10																							1.26
Bishop	do	.13			1.87	.22			.50	T.	T.									T.				.02				.50	.20	.13			3.57
Carlin	do	.25			.35	.13			T.	T.																	.11						0.84
Carson Dam	Carson	.29			.17	.05	T.																							T.			0.51
Cherry Creek	Humboldt	.19	.02		.74	.70	.02	.03		.18																	.12	.36	.06	.10			2.52
Clover Valley	do																																
Columbia	Desert	T.			.70	.17																						.04					0.91
Dry Farm	Humboldt	.23			1.75	.05			.32															.01				.53		.07	.04		3.00
Elko	do	.23	.02		.32	1.14	.04		.02	.18	.01										T.						T.	.13	.03	.10	.02		2.24
Eureka	do	.31			2.82	.01			.01																			.90		.20	.15		4.40
Fallon	Carson	.73			.18	.09	T.																							.10			1.10
Fernley	Truckee				T.	T.																							*	.06			0.06
Gardnerville	Carson																																
Gerlach	Desert				T.	T.																		.15					.05				0.20
Geyser	Humboldt				*	.05																				*	*	.19					0.24
Glenbrook	Truckee			.10	.05	.08																					.02						0.25
Golconda	Humboldt				.10	.14			.15	*	.26																			.14			0.79
Halleck	do		2.00																					T.			T.	.02					2.02
Hawthorne	Desert	.50	.01		.31	.33	.02			.02																							1.19
Jean	do				.20					.10																							0.30
Lahontan	Carson	.14			.19	.04	T.																						.09				0.46
Lida	Desert				1.64	.19																						.12					1.95
Lewers Ranch	Truckee																																
Lovelocks	Humboldt																																
McDermit	do																																
McGill	do	.06			.04	.45	T.			.15										T.							.17	.32	.02	.11	.06		1.38
Massacre Lakes	Desert	.10			T.	T.	T.																	.03					T.	.03	.04		0.20
Mill City	Humboldt			.15		.25																											0.40
Millett	Reese	.11			1.18																												1.29
Mina ‡	Desert																																1.00
North Fork	Humboldt		T.			.20	.40		T.	.08										T.				.10				*	.10	.06			0.94
Oasis Ranch	Desert	.38	T.	T.	.26	T.																						.02					0.66
Potts	Reese	T.	.15		.70	.05																						T.		T.	.03		0.93
Quinn River Ranch	Humboldt	.10			.10	.06	.27		.10															.12					.13				0.88
Rebel Creek	do				.50	.30	.02		.12	T.										T.				.10				T.	.15	.10			1.29
Reno	Truckee				.03	T.	.01																T.						T.	T.			0.04
Skelton	Humboldt	.26		1.94	T.				.36															.04				1.07	T.	.32			3.99
Smith	West Walker	.75	.02		.30	.30				.05																							1.42
Soda Lake	Carson		.27		.17	.05	T.																							.12	T.		0.61
Spooners Ranch	Truckee	T.		.45	.30	T.																							*	.15			0.90
Sweetwater	East Walker	T.			.15	.30																											0.45
Tecoma	Humboldt	T.			*	.95			*	.35																*	.40	.35		T.			2.05
Tonopah	Desert	.01			.56	.44																						.02					1.03
Wells	Humboldt	.20			1.95				.10																			.60					2.85
Willow Point	Little Humboldt.																																
Winnemucca	Humboldt				.51	.16	.05		.16											T.				.02				.27		.18			1.35

* Precipitation included in that of the next measurement.
‡ Separate dates of falls not recorded.
‖ Precipitation for the 24 hours ending on the morning when it is measured.
T. Precipitation is less than 0.01 inch rain or melted snow.

TABLE 3.—*Maximum and minimum temperatures at selected stations, for October, 1912. District No. 10, Great Basin.*

Date.	Wyoming.				Weston, Idaho.		Utah.																			
	Border.		Evanston.				Black Rock.		Corinne.		Deseret.		Government Creek.		Meadowville.		Modena.		Ogden.		Parowan.		Provo.		Salt Lake City.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	71	21	68	30	75	35	75	36	77	33	76	47	77	50	70	33	70	45	72	50	71	46	82	37	80	55
2	71	21	69	29	71	35	69	46	70	42	70	40	64	39	65	35	64	45	72	48	65	41	73	38	66	49
3	70	20	68	30	73	33	75	36	73	38	74	39	74	42	70	34	67	40	69	50	65	40	80	35	75	49
4	71	26	60	42	66	41	64	44	76	54	60	39	67	46	69	45	56	34	67	51	56	40	62	47	66	50
5	50	38	51	33	58	35	49	35	70	50	52	38	49	36	65	34	35	31	68	54	46	32	54	36	52	40
6	45	22	39	18	57	32	50	30	68	46	55	32	53	29	49	28	42	30	66	49	46	30	49	30	55	39
7	44	20	45	29	52	29	56	25	59	34	57	27	52	28	50	29	52	29	63	47	58	26	59	28	54	37
8	41	21	49	20	49	27	60	28	56	35	59	27	55	25	50	25	54	28	64	48	54	33	60	24	57	35
9	40	20	38	30	46	32	52	31	58	32	50	31	59	33	40	32	44	32	67	48	49	32	43	35	45	37
10	45	30	43	30	54	33	50	36	59	34	53	38	48	35	42	32	48	29	68	50	45	33	55	37	50	41
11	49	20	52	24	58	26	52	25	62	33	58	26	53	28	50	25	55	28	65	46	57	28	58	25	53	37
12	54	16	54	22	62	27	52	25	57	28	60	27	55	28	51	25	57	30	68	46	61	29	61	25	56	37
13	58	16	62	22	64	26	63	25	58	30	64	26	59	30	55	24	60	26	70	47	60	23	66	26	63	39
14	64	17	63	21	64	25	68	22	61	28	68	26	62	31	56	23	64	27	69	49	67	31	68	25	64	42
15	65	16	65	22	65	25	67	23	62	33	69	25	65	31	55	22	66	27	67	50	67	31	71	26	68	39
16	66	15	63	20	65	25	71	25	65	36	71	29	68	34	63	23	67	31	68	51	68	35	73	26	70	43
17	60	15	61	26	67	32	73	27	63	35	73	32	68	47	63	35	70	32	70	52	70	35	75	29	81	47
18	60	16	58	27	58	32	68	29	65	28	68	30	60	28	55	35	70	34	68	50	72	34	68	30	60	40
19	64	18	62	23	63	28	71	34	61	35	71	38	66	39	49	25	65	35	63	47	72	39	75	33	69	48
20	48	32	45	29	53	27	63	42	55	25	53	41	63	36	48	25	56	34	64	46	70	33	60	33	49	35
21	45	15	44	19	49	16	57	18	60	21	54	20	61	20	48	18	55	28	68	52	61	25	54	22	53	30
22	62	16	58	18	62	22	69	19	58	21	69	21	62	31	67	21	63	25	72	58	70	29	70	23	68	39
23	55	26	54	24	55	26	67	40	55	21	66	48	60	39	55	31	61	37	73	57	65	44	62	32	64	38
24	58	14	57	19	59	19	67	23	56	25	63	27	60	25	49	21	62	28	71	56	65	31	65	24	57	35
25	65	19	63	22	68	26	70	26	58	26	69	32	63	38	65	26	61	31	70	51	65	37	61	31	70	44
26	56	35	54	32	58	45	64	43	60	24	60	46	61	48	55	37	62	44	64	46	61	44	61	47	60	48
27	46	40	45	36	50	44	61	43	66	28	55	46	51	38	47	40	53	35	52	33	72	39	52	35	55	44
28	44	40	40	32	48	33	56	34	63	26	53	39	43	31	44	32	50	32	40	31	56	34	48	25	44	33
29	48	28	42	22	42	28	48	26	65	28	49	28	41	27	39	29	48	29	47	31	45	29	45	24	48	33
30	40	28	32	25	40	32	41	30	51	31	47	32	37	28	38	27	40	27	48	29	40	27	39	31	44	32
31	38	25	32	24	47	28	44	27	50	25	45	27	41	26	38	27	39	24	49	22	38	26	42	32	44	33
Means	54.5	22.8	52.5	25.8	58.0	29.8	61.0	30.7	61.8	31.8	61.0	33.0	58.0	33.7	53.5	29.0	56.6	31.8	64.6	46.6	59.9	33.6	61.0	30.7	59.4	40.1

Date.	Burns, Oreg.		Nevada.																									
			Cherry Creek.		Elko.		Eureka.		Fallon.		Gerlach.		Hawthorne.		Jean.		Millett.		Quinn River Ranch.		Reno.		Tecoma.		Tonopah.		Winnemucca.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1	79	32	68	46	71	37	66	43	54	42	72	37	72	40	.....	.....	72	47	65	39	61	41	77	28	67	43	61	42
2	82	29	60	39	69	32	64	34	64	35	73	42	64	45	.....	.....	69	34	75	35	67	42	78	25	63	41	70	35
3	80	30	71	36	74	31	71	40	78	39	76	52	75	45	.....	.....	74	30	82	24	77	39	76	28	68	50	76	33
4	72	28	62	33	70	32	63	28	43	33	70	27	55	34	.....	.....	66	30	63	32	60	33	72	25	55	29	60	33
5	80	27	40	30	37	32	51	26	42	36	45	25	48	32	70	30	41	29	45	36	43	37	70	23	34	29	43	33
6	78	21	44	33	47	35	45	23	51	40	80	30	53	36	62	36	46	25	50	35	49	38	70	22	45	30	48	34
7	80	31	47	26	55	26	50	20	58	32	57	33	57	34	70	40	51	25	61	22	57	35	68	18	46	34	57	32
8	76	25	52	27	51	26	53	22	63	32	60	36	64	34	72	35	58	25	55	27	61	31	67	15	52	34	54	30
9	73	14	47	29	42	31	44	24	56	35	55	22	56	36	70	28	51	31	54	28	51	32	65	17	40	31	48	29
10	64	28	49	31	50	24	46	25	58	25	62	39	58	30	72	30	52	22	60	18	63	25	64	20	50	28	57	23
11	71	28	53	25	59	24	57	25	63	26	64	42	63	32	70	30	62	23	68	20	65	29	63	18	56	38	64	26
12	65	26	55	30	62	25	59	27	66	30	63	40	66	35	71	32	62	25	65	19	66	31	65	20	62	44	66	28
13	70	30	61	25	65	22	43	31	73	30	70	43	73	40	76	36	65	23	73	20	72	33	64	15	62	44	70	34
14	72	31	63	24	67	22	67	33	74	35	70	40	74	45	75	33	69	20	72	23	73	34	63	12	64	47	70	28
15	74	29	66	27	67	21	68	36	75	35	74	46	70	46	70	32	74	22	71	26	72	38	66	18	65	48	72	29
16	74	39	67	30	69	23	70	36	76	32	72	25	70	45	68	30	73	23	73	21	76	36	70	20	65	47	74	27
17	62	16	68	40	68	26	70	35	74	33	71	40	70	40	70	34	76	23	74	25	73	36	70	16	67	49	70	32
18	54	31	65	33	67	20	69	31	68	28	72	44	73	38	69	33	73	20	65	20	75	31	68	18	68	48	68	31
19	55	21	65	47	66	24	67	42	69	37	65	35	74	49	69	33	69	36	59	28	63	40	65	15	66	46	66	33
20	50	13	60	32	50	23	53	25	60	41	50	24	63	38	66	31	70	25	.....	.....	55	31	62	10	50	34	50	20
21	50	26	51	17	55	12	57	18	61	20	58	40	71	29	69	31	59	15	.....	.....	65	26	60	2	55	34	59	18
22	48	20	60	32	63	24	61	36	71	30	65	40	77	40	73	34	65	25	.....	.....	65	39	67	10	58	40	65	24
23	45	14	51	40	59	34	54	34	62	35	55	32	62	42	70	34	67	20	57	27	54	29	67	22	53	42	52	26
24	54	25	60	26	63	17	60	25	63	21	53	39	70	30	71	33	65	17	60	13	61	25	64	4	60	40	63	21
25	59	22	62	40	62	39	69	40	71	37	59	41	72	54	67	34	63	30	60	21	63	40	62	10	58	45	68	37
26	55	29	60	45	66	30	59	42	61	28	56	41	63	40	67	34	65	30	62	14	61	31	67	22	62	46	63	26
27	50	20	50	35	54	37	52	25	61	35	52	37	60	35	69	30	54	28	47	29	51	36	72	34	49	31	42	36
28	50	27	49	33	47	33	47	24	53	25	50	34	56	28	72	33	55	28	52	30	51	28	65	28	47	27	51	32
29	43	12	42	31	54	34	41	29	58	38	62	40	53	38	71	36	50	30	50	31	50	35	62	30	48	34	50	29
30	45	18	36	26	42	27	35	20	48	24	60	34	49	30	72	38	41	18	49	21	49	25	60	18	39	24	45	23
31	48	22	35	18	43	14	43	10	51	19	55	34	53	25	68	34	46	10	49	13	51	22	62	10	46	27	47	21
Mean	63.2	24.6	55.4	31.8	58.5	27.0	56.6	29.3	62.1	31.9	62.8	36.9	64.0	37.6	70.0[d]	33.1[d]	61.4	25.5	61.2[c]	24.9[c]	61.4	33.2	66.8	18.2	55.5	38.2	59.6	29.2

a, b, c, etc., indicate, respectively 1, 2, 3, etc., days missing from the record.