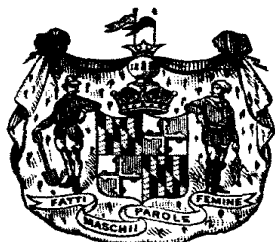


U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU,
CO-OPERATING WITH THE
MARYLAND STATE WEATHER SERVICE

Established by an Act of the General Assembly of the State of Maryland, 1892,
and Maintained in Connection with



The Johns Hopkins University and the Maryland Agricultural College.
CENTRAL OFFICE, JOHNS HOPKINS UNIVERSITY, BALTIMORE, MD.

PROF. WM. B. CLARK,
JOHNS HOPKINS UNIVERSITY,
Director.

PROF. MILTON WHITNEY,
MARYLAND AGRICULTURAL COLLEGE,
Secretary and Treasurer.

DR. C. P. CRONK,
U. S. WEATHER BUREAU,
Meteorologist in Charge.

VOL. II.

MONTHLY REPORT OF OBSERVATIONS, JUNE, 1892.

No. 3.

Review of the Month.

RAINFALL.

The table of daily precipitation for June, in Maryland, shows the month to have been one of scattered showers, culminating in more general rains about the 9th, 19th, 27th, and 30th.

From the appearance of the weather map on the 1st, showing a well developed storm over Missouri with a large and well defined area of rainfall, general and plentiful rains were anticipated for Maryland; but the storm passed northeast, deluging the States to the west and north, but bringing only a few local showers to Maryland; these being confined, for the most part, to Western Maryland. At Cumberland they were very heavy. The showers were more general on the 5th, but they were the result of no well defined storm. Local showers fell on the 6th, 7th, and 8th, becoming quite general on the 9th and 10th. These latter rains were due to a slight depression which was central over New Jersey on the evening of the 9th. On the morning of the 10th it was off the coast of Maryland, but it disappeared before night, its place being taken by a higher area from the north.

Very little rain fell on the 11th, and none fell on the 12th and 13th. The well marked area of high pressure, above mentioned, was then settling southward over the State. A few scattered showers fell on the 14th, 15th and 16th. On the 17th, 18th, 19th and 20th they were more general, and due to a rapid cooling of the warm moist air, the cold currents coming from the "high" to the eastward. From the 21st to the 26th, scattered showers; but on the 27th the best defined and severest storm of the month passed over the lake region and caused general rains throughout the State. Local showers again occurred on the 28th and 29th. On the 30th,

another storm, passing over Canada, caused showers in most sections; and on the 31st there was no rain.

An inspection of the table shows that there were but three days of the month (the 12th, 13th and 31st) on which rain did not fall in some portion of the State. The amounts varied greatly, being all the way from 10.03 inches at Cumberland down to 1.82 at Barron Creek Springs. The map shows the rainfall to have been greatest in Western Maryland and about the Chesapeake, in which sections it was generally above the normal. The minimum fell in Southern Maryland, where it was considerably below the normal.

TEMPERATURE.

The month, in Maryland, was one of the warmest on record. The average temperature for the entire State was 75.3°, while for June, 1891, it was 71.4°. The difference is not at all due to the increase in the number of stations, for, taking the same stations from which the mean of 71.4° was obtained (with the exception of Summit Hall, which has been discontinued), and the mean for June, 1892, becomes 76.6°. The highest average for the month, 78.7°, at Cumberland, was obtained from the records of Mr. Howard Shriver. The lowest average was from the records of Prof. Curtiss, Oakland School, Fallston. A slightly lower average, 71.2°, was given at Seaford, Del. The highest maximum temperature, 98°, was reported from New Market by Dr. Hopkins, while the lowest, 84°, was at Jewell, reported by Mr. Plummer. At Baltimore the excess in temperature during the month (above the normal) amounted to 105°. Distributed throughout the month, this would be an excess of 3.5° for each day. The normal temperature of a month or day, it will be remembered, is its average temperature for a number of years. Thus, the normal temperature

for June, at Baltimore, is ascertained by adding together the averages of the month since 1871 and dividing by the number of years.

Referring to the file of daily weather maps for June, it is observed that southerly winds prevailed during the month, flowing from areas of heated air on the south to areas of lower pressure passing eastward on the north; the result being a high temperature in Maryland and the other Middle and North Atlantic States. Earlier in the season the "lows" travelled more to the southward, and the cool north winds drawn into them (they are really vast aerial whirlpools) passed over Maryland and neighboring States, producing cold weather and a late spring.

CROPS.

During the first week of the month the warm sunshiny weather was beneficial to all crops and decidedly favorable for farm work. Wheat looked poor in some of the southern counties, but better in northern and western sections. In Eastern Maryland it was slightly injured (together with vines and grass) by high winds. Tobacco planting was under way in the southern portions of the State and some damage had been done by "the fly." "The worm" did some damage to corn in Southern Maryland, and potatoes (with strawberries and garden crops) slightly suffered from drouth in the east. The hay crop was reported excellent in Western Maryland, but short, and in need of rain, in other sections. There was the promise of considerable fruit in the northern and western portions of the State, but a poor outlook elsewhere. Truckers were picking and shipping strawberries in Southern Maryland, while in Western Maryland they were in bloom and promising a very large crop. Oats in the west were reported as well started. At the close of the week showers were needed in all sections, with a continuation of the high temperature and abundant sunshine.

In the second week, crops in the east and the south suffered slightly from excessive rains, causing corn to turn yellow on low lands and wheat to rust. Tobacco planting was reported to be about half finished, and the plants as scarce and backward. The wheat harvest began in Eastern Maryland somewhat earlier than last year. In Northern Central and Western Maryland the weather conditions were decidedly favorable to growing crops and to the advancement of farm work. Wheat in these sections grew rapidly, and it was reported that with a continuation of the favorable conditions it would be ready to harvest by the latter part of the month. The weather was favorable for tomato planting.

The week closed with the need of sunshine and warm nights.

The reports of the third week indicated that the high temperature which prevailed had been of benefit to most sections of the State. In the central and western portions corn made a rapid growth, haying progressed favorably, and wheat improved rapidly. In Eastern Maryland, rain was much needed, crops having suffered slightly from drouth. In Southern Maryland corn made a rapid growth; tobacco was slightly injured by cut-worms. The week closed with a need of continued warm weather and an average rainfall for all sections of the State.

The remainder of the month was favorable to the farmer throughout the central and western portions of the State, with the exception of Harford county, where there was a need of rain. Wheat harvesting was actively carried on in Northern Central Maryland with the prospect of an excellent yield. Considerable hay, also, was cut and saved in good condition. In the east and south, grass, tobacco, and garden vegetables suffered from drouth. The wheat and hay harvest in Eastern Maryland was finished and the crops saved in good condition. A continuance of the average temperature and sunshine, with more rain in Eastern and Southern Maryland, was needed at the close of the month.

Local Weather Sayings.

Regarding a suggestion by the Chief of the Weather Bureau that "local signs of weather, especially of rains, be added to forecasts," Mr. Albert E. Acworth, Barron Creek Springs, Md., says:

"A great many, perhaps three-quarters, of the weather signs, or proverbs, are misleading, since no accurate record has been kept to prove or disprove their infallibility. The late Prof. Henry, of the Smithsonian Institution, said our *successes* were more easily and better remembered than our *failures*, and from this propensity of the human mind originated many proverbs and sayings which gained currency and inspired belief. Upon such sayings 'Almanac Weather Predictions' are usually based, and while it may be true that the weather, like history, repeats itself within narrow limits, as to temperature and rainfall, this fact should not be overlooked.

Meteorologists are agreed that many years of careful observations are necessary before general conclusions with even an approximation to certainty can be drawn. Thus in June, generally regarded as the most important month of the crop season,

the average temperature for nineteen years, at Barron Creek Springs, was 72.5°, the highest mean being 77.1°, the lowest 68.4°—a range of 8.7°—yet statistician Dodge asserts that the difference of a single degree in the crop season means the gain or loss of millions of bushels of corn in the United States.

Confidence in signs and sayings and the lack of records have often been the causes of considerable loss to the weather-wise farmer. A given field, with a certain amount of fertilizer, once yielded so many bushels; this year it should do likewise, because the tillage, fertilizer, and season are about the same; yet there may have been a difference of temperature or rainfall at the critical time of the plant's growth which, with no record for reference, may be forgotten.

The farmer, doubtless, would derive great benefit from keeping a daily record of the temperature, wind and rainfall, together with the time of planting the crops. Rules of tillage could also be studied with profit so as to conserve moisture or hasten

evaporation as the season promises to be dry or wet. Under the circumstances, however, would it not be possible to obtain, classify, and publish a series of 'local weather sayings' from crop correspondents of the Maryland Weather Service? Such a list would prove interesting and might furnish some of general application for the whole State. The following are deduced from observations and are, I think, true here:

If a cloud-bank settles over the sun soon after the rising (within one to three hours) rain is likely to follow.

Unusual visibility and brilliancy of the stars is generally followed by rain.

The hooting of owls in the day-time (winter or fall) is an indication of rain.

When robins sing at about ten or eleven A. M., a squall usually follows; and the same result also attends the closing of flowers and the curling of leaves.

On tide-water, a majority of the thunderstorms do not come up against the tide."

Monthly Summary.—June, 1892.

Temperature (degrees).—Mean monthly, 75.3. Highest monthly mean, 78.7, at Cumberland *a*. Lowest monthly mean, 71.2, at Seaford, Del. Highest temperature, 98, at New Market, on the 24th. Lowest temperature, 49, at Seaford, Del., on the 11th. Greatest local monthly range, 46, at Seaford, Del. Least local monthly range, 19, at Jewell. Mean monthly range, 36.9. Mean maximum, 83.8. Mean minimum, 66.9.

Precipitation (in inches).—Average, 3.78. Greatest amount, 10.08, at Cumberland *b*. Least amount, 1.42, at the Distributing Reservoir, D. C.

Wind.—Prevailing direction, southwest. Total movement in miles, Baltimore, 5635; Norfolk, Va., 6776; Washington, D. C., 4550.

Thunderstorms.—At Baltimore, on the 5th, 8th, 9th, 18th, 22nd, 23rd, 24th, 27th, 30th; at Barron Creek Springs, on the 27th, 30th; at Cumberland *a*, on the 1st, 3rd, 4th, 9th, 10th, 16th, 17th, 18th, 19th, 27th, 30th; at Cumberland *b*, on the 3rd, 16th, 17th; at Darlington, on the 3rd, 5th, 8th, 14th, 17th, 18th, 19th, 23rd, 26th, 29th, 30th; at Dover, Del., on the 9th, 27th, 30th; at Frederick, on the 5th, 9th, 14th, 17th, 18th, 19th, 22nd, 27th, 30th; at Jewell, on the 8th, 9th, 10th, 18th, 23rd, 27th; at Mt. St. Mary's, on the 5th, 17th, 18th; at Seaford, Del., on the 27th; at Solomon's, on the 6th, 7th, 8th, 10th, 20th, 23rd, 24th, 27th, 30th; at Taneytown, on the 5th, 9th, 17th, 19th, 27th, 30th; at Woodstock, on the 9th, 17th, 24th, 27th; at Norfolk, Va., on the 6th, 7th, 9th, 20th, 24th, 25th, 26th, 30th.

Halos.—At Baltimore, on the 1st; at Barron Creek Springs, on the 4th, 6th, 7th, 9th; at Fallston, on the 25th.

Meteors.—At Barron Creek Springs, on the 26th.

Average number of cloudless days, 15; partly cloudy days, 10; cloudy days, 5; rainy days (.01 of an inch or more), 9.

Local verification of weather and temperature signals for June, reported by Displaymen:

Weather	- - - - -	80.5 per cent.
Temperature	- - - - -	88.1 " "
Average	- - - - -	84.3 " "

Notes by Observers.

Baltimore.—1st, lunar halo. 27th, hail reported near Govanstown (north of city); slight damage to tender vegetation. Hail also accompanied thunderstorm of the 30th, but was very light.

Barron Creek Springs.—2nd, brown corona of evening star at 8 P. M. Corona of moon at 9 P. M. 4th, slight fog 4 to 7 A. M. Lunar halo 8 P. M. 5th, young cucumbers in places. Squall 2 to 5 P. M. 8th, slight fog; distant thunder S. E. 6 A. M. Lunar halo 9 P. M. 9th, distant thunder E. Wheat cutting. 11th, 12th, 13th and 14th, slightly smoky; distant thunder N. W. 18th, distant thunder S. W. to N. W. with apparent rain. 19th, parhelia of sun N. and S. sides, 6.30 P. M. 20th, very high tide at the bridge. 22nd, sugar corn silk tassels; corn and cabbage wilt. 26th, meteor N. N. E. 9.30 P. M. 29th, parhelia of sun, 6 P. M. Chestnut trees in blossom. 30th, very heavy blow preceding and during first part of rain.

Cumberland a.—1st, thunderstorm N. W., passed S. behind Will's Mountain. 3rd, heavy thunderstorm from the S. W. 4th, a cloud-burst; rain began during night, ended 5 P. M.; amount, 4.60 inches. The storm, which was thought to be a cloud-burst, was terrific; its greatest force seems to have been spent at, or north of station No. 1, and west of No. 2, diminishing toward No. 3. The fall of rain at Edwin's (No. 1) was 4.60 inches; across Will's Mountain, north of Cumberland (No. 3), 2.50 inches, while at my station it was only 1.83 inches. Stations 1 and 2 are the highest in the city. Various streets were submerged, though the main flood came down the Cemetery Valley, striking the B. & O. Railroad which crosses Fayette street. The greatest damage was done at the foot of the Valley; fences and shanties were washed away, the street and railroad track torn up, and board timber and stone were deposited in many places. Mr. Milliman's nursery was washed out, causing considerable loss; Mr. Henry Shriver's property was also badly damaged. On the east side there was probably not so great a fall of rain, but it was collected by the Valley Bedford, the Dry Run, etc., and poured down Center street, submerging all in the vicinity of the ice factory and stopping the B. & O. and the electric railroads. 16th, thunderstorm accompanied by light hail; 28th, turned quite cool with fresh breeze from the north. Normal rainfall, year ending July 1st, 17.32 inches; actual fall, 21.00 inches; departure, + 3.68 inches.

Darlington.—Great number of thunderstorms, all of which came in the afternoon and from the west. 30th, light hail.

Easton.—No remarkable meteorological occurrence during the month of June, except a gale of unusual energy accompanied by rain about 4.30 P. M. on the 30th, continuing about 30 minutes, tearing and breaking down trees, unroofing brick hotel, but otherwise doing little damage.

Seaford, Del.—27th, severe thunderstorm in the evening. 30th, heavy wind and rain storm at 4.30 P. M.; highest wind in a number of years.

Solomon's.—23rd, .93 of an inch of rain in 15 minutes—1.55–2.10 P. M. 30th, 4.15 P. M., a gale lasting 15 minutes; the wind reached a velocity of 50 miles per hour; .45 of an inch of rain in 16 minutes. The temperature fell 24 degrees between 2.30 and 4.30 P. M.

^a Howard Shriver.

^b E. T. Shriver.

MONTHLY SUMMARY OF REPORTS, JUNE, 1892.

STATIONS.	COUNTIES.	Altitude above Sea in feet.	Latitude.	Longitude.	† BAROMETER.				TEMPERATURE.						Monthly Range.	Total Precipitation.	Clear Days.	Fair Days.	Cloudy Days.	Rainy Days.	Prevailing Wind.			
					Monthly Mean.	Maxi- mum.		Mini- mum.		Monthly Mean.	Mean of Maximum.	Mean of Minimum.	Degrees.	Maxi- mum.								Mini- mum.		
						Height.	Date.	Height.	Date.					Height.								Date.	Height.	Date.
Baltimore.		179	39°17'	76°36'	29.993	30.262	1	29.654	27	75.9	84.9	66.9	94	14	54	11	40	4.87	8	19	3	13	S. W.	
Barron Ck. Springs.	Wicomico.	25	38°30'	75°39'						75.6	83.8	67.4	92	23	51	11	41	1.82	10	14	6	7	S. W.	
*Boettcherville.	Alleghany		39°39'	78°48'						73.8	81.0	66.6	90	12	55	26	35	6.60				13		
Cumberland a.	Alleghany	650	39°39'	78°46'	29.997	30.203	1	29.660	27	78.7	88.0	69.4	95	13	59	12	36	7.31	18	3	9	12		
Cumberland b.	Alleghany	700	39°39'	78°45'						73.3	80.1	66.8	89	14	56	29	33	10.08				14		
Darlington	Harford.	300	39°39'	76°14'						72.8	82.5	63.2	92	14	51	6	41	4.02	23	4	3	12		
Distributing Res., D. C.			38°52'	77°00'						77.6			92	23	58	11	34	1.42					10	
Dover, Del.	Kent		39° 9'	75°31'						75.4	83.9	67.0	91	14	53	11	38	1.45	21	7	2	7	S. W.	
Easton	Talbot	35	38°42'	76° 6'						76.1	83.7	68.6	91	15	51	11	40	3.06	13	12	5	5	S. W.	
Fallston	Harford.	450	39°31'	76°24'						72.5			90	23	54	11	36	3.35					7	
Frederick	Frederick.	280	39°24'	77°18'						76.4	86.0	66.7	94	17	52	11	42	2.80	22	3	5	12		
*New Market.	Frederick.	500	39°23'	77°18'						74.7			93	24	57	11	41	3.46	14	14	2	12	S. W.	
Receiving Res., D. C.	Montgomery		39°00'	77°14'						77.1			91	23	60	11	31	2.10					8	
*Jewell.	Anne Arundel.		38°44'	76°40'						76.7			84	19	65	11	19	5.68	21	6	3	8		
*Kirkwood, Del.	New Castle.		39°35'	75°40'						76.1			92	18	62	10	33							
McDonogh	Baltimore.	535	39°23'	76°44'	29.990	30.390	1	29.590	27	74.8	81.4	68.2	89	13	53	11	36	2.90				10		
Mt. St. Mary's	Frederick.	720	39°41'	77°21'						72.6	80.7	64.6	93	13	52	10	41	4.52					7	
*New Market.	Frederick.		39°23'	77°18'						74.7			93	24	57	11	41	3.46	14	14	2	12	S. W.	
Receiving Res., D. C.			38°52'	77°00'						77.2			90	23	59	11	31	3.01					10	
Seaford, Del.	Sussex		38°40'	75°35'						71.2	86.2	66.3	95	23	49	11	46	2.34					3	
Solomon's	Calvert.	20	39°19'	76°27'						77.5	85.3	69.6	94	23	57	11	37	4.00	6	10	14	8	S. W.	
Taneytown	Carroll		39°40'	77° 9'														3.03					8	
Washington, D. C.		112	38°52'	77°00'	30.000	30.260	1	29.670	27	76.2	85.2	67.3	94	23	53	11	41	2.59	8	19	3	11	S.	
Woodstock	Howard	392	39°20'	76°49'	29.956	30.204	1	29.632	27	75.1	84.0	66.2	92	13	52	12	40	2.90	9	13	8	6	S. W.	
†Norfolk, Va.		43	36°51'	76°17'	30.044	30.336	1	29.742	27	76.4	84.7	68.0	94	23	58	12	36	4.83	14	12	4	14	S.	
Averages					29.960					75.3	83.8	66.9					36.9	3.78	14.4	10.3	5.2	9.3		

* Extremes of temperature from observed readings. † Readings reduced to sea-level. ‡ Omitted in computing means. †21 days.

DAILY PRECIPITATION FOR JUNE, 1892.

STATIONS.	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	Total.
Baltimore				.01	.27			.57	.37	T						T		.07	.11		.38	.06	T	.46		.34		1.58	.02		.63	4.87
Barron Crk. Spr.						.39			.11	.03	T							.45		.04							.20			.60	1.82	
Boettcherville	.20		.30	2.50			*	.80	.70	.30						.80	.40		.20	.20								.10		.10		6.60
Cumberland a.	.75	*	2.55					1.00	.65	.40						.65	.60		.30		.02							.10		.31		7.31
Cumberland b.	.46		.68	4.64	.11		.88		.82	.38						.67	.68		.27							.12	.07	.08		.22		10.08
Darlington				.28	.03			.19	.55					.04			.15	.97	.05					.04				1.81		.25	.03	4.02
Dist. Res. D. C.					.17	.02				.12	.07	.02								.20	.03			.20				.02	.57			1.42
Dover, Del.								*	*	.58													.23					.16		.48		1.45
Easton								.23	.45	.30								.38									1.20			.50		3.06
Fallston					.12	.50	.40	.40											.03				.02		.23			1.57		.08		3.55
Frederick				.23	.05			.46					.33				.33	.28	.36			.10			.23		.19		.06	.18		2.80
Great Falls	.03			.12				.24	.11	.56									.12	.06									.86			2.10
Jewell					T		*	2.50	.63	.75								.33					T				.60		.87		5.68	
McDonogh			.03		.55			.63	.05									.56	.04				.37		.05		.62					2.90
Mt. St. Mary's	.82	.35						.92								.48	.46	.69									.85					4.52
New Market				T	.43	T		.10	.40	.18				T		.80	T		.25		.10		*	.34	.70				.16		3.46	
Rec. Res. D. C.	.03				.11			.80	.15	.30									.59	.05				.34			.05	.59				3.01
Seaford, Del.								.20																		T	1.09			1.05		2.34
Solomon's				.02	T			.90		1.09								T		.08			.93	.02			.20			.76		4.00
Taneytown				.18		.01	.55								.14	.02	.93											1.19		.91		3.08
Washington, D. C.			T	.06		.06	.12	.07					T				T	.22	.03				.41	.01	T		.93	.02	.06		2.59	
Woodstock			T	.40			T	.90	T								T								.40		.40	.50	.30			2.90
Norfolk, Va.				.97	T		.80	T	.96	.02	.05							.48		.14		.02		.08	.66	.01	T	1.11	.15	.18		4.83

Note.—"T" indicates a trace of rain or snow.

* Amount included in next measurement.

Meteorological Stations reporting to the Maryland State Weather Service.

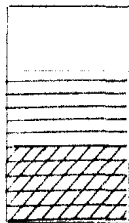
Stations of Observation.	County.	Observer.
Agricultural College	Prince George's	W. H. Zimmerman, A. M.
Annapolis.....	Anne Arundel.....	Walter Hay, M. D.
Baltimore.....		{ G. N. Wilson, W. D. White, A. T. Brewer.
Barron Creek Springs	Wicomico	Albert E. Acworth.
Boettcherville	Alleghany	F. F. Brown.
Charlotte Hall	St. Mary's	R. W. Silvester.
Cumberland <i>a</i>	Alleghany	Howard Shriver.
Cumberland <i>b</i>	Alleghany	E. T. Shriver.
Darlington	Harford	A. F. Galbreath.
Denton	Caroline	F. C. Ramsdell.
Distributing Reservoir, D. C.		Lieut.-Col. Elliot.
Dover, Del.....	Kent	Jno. S. Jester.
Easton	Talbot	S. P. Minnick.
Edgemont	Washington.....	Chas. Feldman.
Fallston	Harford	G. G. Curtiss.
Frederick	Frederick.....	G. Ernest Bantz.
Great Falls	Montgomery	Lieut.-Col. Elliot.
Jewell	Anne Arundel.....	Jos. Plummer.
Kirkwood, Del.....	New Castle	W. C. L. Carnagy.
Leonardtwn	St. Mary's	G. W. Joy.
McDonogh	Baltimore.....	W. W. Walker.
Mt. St. Mary's (Emmitsburg)	Frederick	J. A. Mitchell, A. M.
New Market	Frederick.....	H. H. Hopkins, M. D.
Receiving Reservoir, D. C.		Lieut.-Col. Elliot.
Seaford, Del	Sussex	H. L. Wallace.
Solomon's	Calvert	W. H. Marsh, M. D.
Taneytown	Carroll	C. W. Weaver, M. D.
Upper Marlborough	Prince George's	F. Sasscer.
Woodstock College	Howard	T. J. A. Freeman, S. J.
Norfolk, Va		A. J. Davis.
Washington, D. C.....		S. W. Beall.

Stations displaying Weather Signals.	County.	Displaymen.
Annapolis	Anne Arundel.....	W. M. Abbott.
Bel Air	Harford	N. N. Nock.
Bradshaw	Baltimore.....	B. F. Taylor.
Bridgeville, Del.....	Sussex	T. J. Gray.
Buckeystown	Frederick.....	A. W. Nicodemus.
Darlington	Harford	A. F. Galbreath.
Delaware City, Del.....	New Castle	W. E. Reybold.
Dickerson	Montgomery	W. H. Dickerson.
Easton	Talbot	G. W. Minnick & Son.
Emmitsburg	Frederick.....	J. A. Mitchell, A. M.
* Felton, Del.....	Kent	J. H. Hubbard.
Frostburgh	Alleghany	C. J. Conner.
Grantsville	Garrett	A. L. Gnagey.
Greensboro	Caroline	Plummer & Plummer.
Hagerstown	Washington.....	R. J. Hamilton.
Havre de Grace	Harford	W. S. McCombs.
Lonaconing	Alleghany	J. J. Robinson.
Middletown	Frederick.....	G. C. Rhoderick, Jr.
Milford, Del.....	Kent	J. Y. Foulk.
Oakland	Garrett	J. M. Litzinger.
Odenton	Anne Arundel	E. B. Watts.
Ridgely	Caroline	J. A. Sigler.
Salisbury	Wicomico	L. W. Gunby.
Seaford, Del	Sussex	H. L. Wallace.
Snow Hill	Worcester	Purnell & Vincent.
* Sparrow's Point	Baltimore.....	Md. Steel Co.
St. Michael's	Talbot	E. M. Jefferson.
Taneytown.....	Carroll	C. W. Weaver, M. D.
Westminster	Carroll	W. S. Myer & Bro.
Wilmington, Del.....	New Castle	Wm. Lawton.

*Whistle Signals only.

MAP OF
MARYLAND AND DELAWARE
 SHOWING
 THE PRECIPITATION
 AND
 LINES OF MEAN TEMPERATURES
 FOR JUNE, 1892.

Scale of Shades:

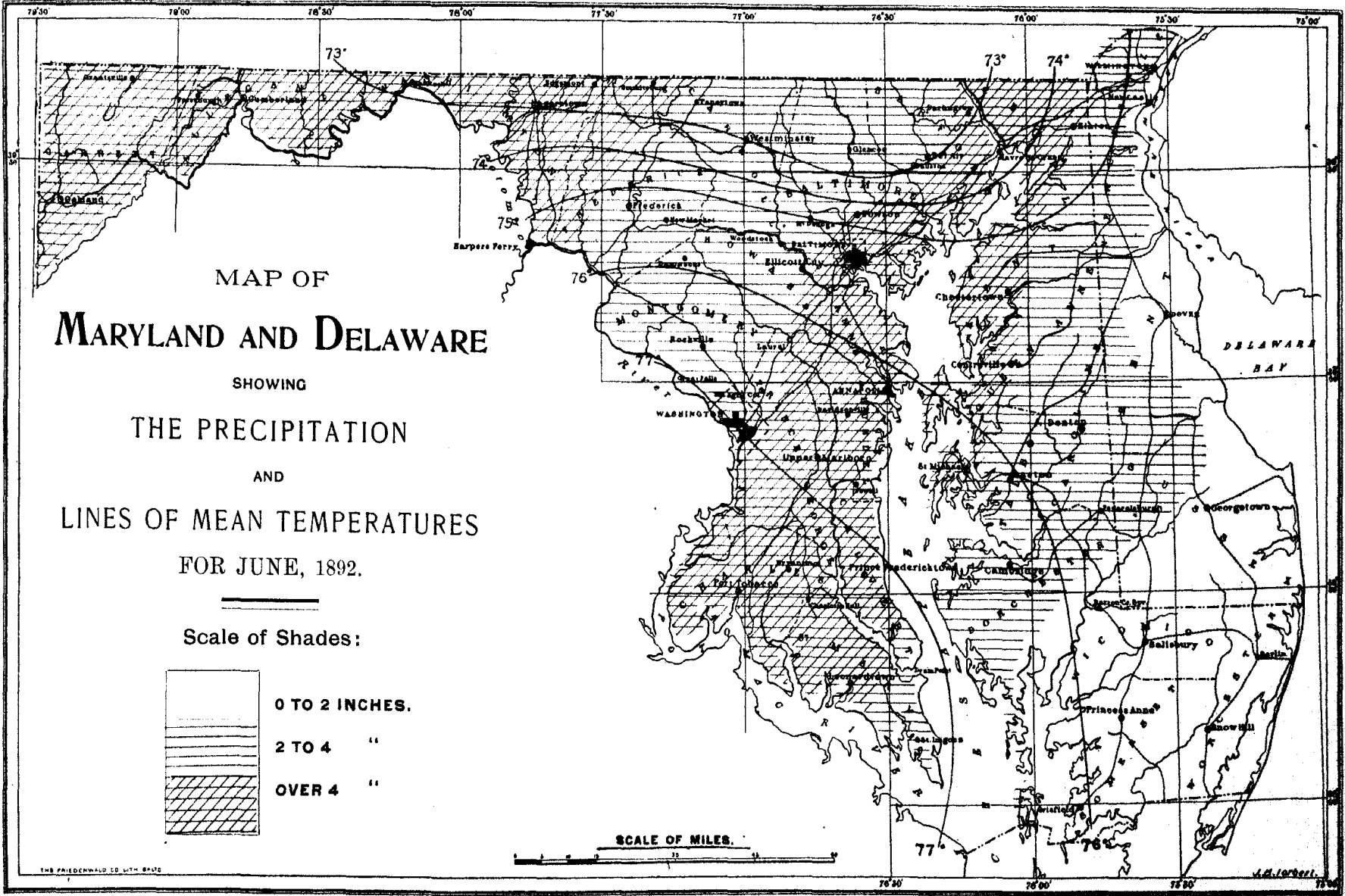
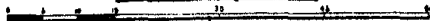


0 TO 2 INCHES.

2 TO 4 "

OVER 4 "

SCALE OF MILES.



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